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A CONCEPT FOR MERGING EIC AND WBS TO ACHIEVE A COMMON-LANGUAGE --ETC(U)
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A CONCEPT FOR MERGING EIC AND WBS TO ACHIEVE
A COMMON-LANGUAGE CONFIGURATION ACCOUNTING SYSTEM

January 1973

Prepared for
COMSERVPAC
AND
PEARL HARBOR NAVAL SHIPYARD
Under Contract N00604-71-C-0431

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A COMMON-LANGUAGE CONFIGURATION ACCOUNTING SYSTEM

January 1973

Prepared for
COMSERVPAC
AND
PEARL HARBOR NAVAL SHIPYARD
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ABSTRACT

System definition is a prerequisite for effective management of maintenance, new construction, test programs, logistical support, and other ship-related needs. To provide integrated management of ship systems from "cradle to grave", the definition must utilize a common language. Neither the EIC or the WBS, as presently structured, are suitable for use as a common language since they are basically directed toward different elements in the Navy organization. However a configuration accounting system developed by merging the WBS and EIC with due regard for the needs of both maintenance and construction managers can serve that purpose. The feasibility of creating a common language by merging the two systems is demonstrated in this report.

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INTRODUCTION

The two principal methods of configuration accounting in the Navy are the Equipment Identification Code (EIC) and Bureau of Ships Consolidated Index (BSCI). Each accounting method is used by different Navy organizations, and their parallel use contributes to the complexity of ship maintenance programs.

The desirability of a common language for configuration accounting is expressed in the Ship Overhaul Improvement Program Manual. This manual was developed to "identify those maintenance problems whose specific solutions would significantly contribute to improved management of the maintenance dollar and provide optimum overhauls of complex ships." Item 414 therein, "Develop and Implement a NAVSHIPS 'Single Language'," cites the problems arising from the use of different configuration accounting systems during the life of the ship. The Work Breakdown Structure (WBS) was developed in response to this task. However, because the WBS is oriented toward new construction and conversion, it has not been accepted by the maintenance community, particularly those organizational elements involved in the areas of electronics and ordnance.

This report discusses an approach to meeting the configuration accounting needs of all Navy elements - merging the EIC and WBS into the desired common language. The feasibility of such an approach is demonstrated, and detailed examples given of how the merged system would work.

2 PRESENT SYSTEMS

The Equipment Identification Code is the principal means of configuration accounting for reported maintenance actions/deferrals under the Navy 3-M Maintenance Data Collection System. The Work Breakdown Structure is a proposed configuration accounting system intended to combine the functions served by the EIC; the Bureau of Ships Consolidated Index of Drawings, Materials and Services Related to Construction and Conversion (BSCI); and Ships Design and Material, group 9000 Series, of the Navy Standard Subject Identification Code (SSIC).

The WBS is oriented toward the needs of the new-construction and conversion community, while the EIC is oriented toward the needs of the maintenance and overhaul community. The present structure of these two systems will now be discussed.

2.1 EQUIPMENT IDENTIFICATION CODE

The EIC is a four-character alphanumeric code for identifying ship configurations. The initial character identifies major systems (e.g., Outfit/Furnishings, Propulsion, Sonar, etc.); the second character denotes major subsystems (Heating, Fuel Oil Service, etc.) within each major system; and the last two characters identify equipment or equipment groups (e.g., main feed pumps, distilling plant, etc.) within each subsystem.

Under the EIC structure, 28 major systems are identified. Certain of these systems (e.g., Hull Structure) are common to all ships; others (e.g., Propulsion, Main Steam, Mechanical Drive) are unique to specific types. The 28 major systems are subdivided into approximately 350 subsystems, and these subsystems into approximately 10,000 equipment groups.

System breakout under the EIC structure is essentially on the following basis: 1) hull, mechanical, and electrical systems according to functional element or equipment type; 2) electronic systems according to "AN" designators and equipment modification number; and 3) ordnance systems according to "Mark-Mod" designators.

The EIC also provides one non-equipment category for maintenance support services, such as sea trials, tests, shore systems, planned maintenance, etc.

2.2 WORK BREAKDOWN STRUCTURE

The WBS is a three-character numeric code which, similarly to the EIC, is based on a three-level breakout of ship configuration. Under the WBS system the ship is broken out at the first level into seven major equipment categories: Hull Structure, Propulsion Plant, Electric Plant, Command and Surveillance, Auxiliary Systems, Outfit and Furnishings, and Armament. Each of these categories is further subdivided into two additional levels of detail. The third level of breakout consists of approximately 260 equipment categories.

The WBS also provides three non-equipment categories: General Requirements, Integration/Engineering, and Ship Assembly.

The addition of a fourth digit to the basic three-character WBS code increases the number of equipment categories available to approximately 2300. Approximately 400 additional equipment categories would be available if the third level were expanded to its full capability.

2.3 COMPARISON OF EIC AND WBS

The EIC and WBS will now be compared in terms of:

- a. Levels of breakout
- b. Exhaustiveness of coverage
- c. Discreteness of coverage
- d. Degree of breakout
- e. Universality of equipment categories

2.3.1 Levels of Breakout

The objectives of maintenance management require that the data collection system provide the capability for:

- a. Grouping equipments at more than one level of detail, to permit budgeting, overhaul planning, problem analysis, and the various other maintenance management functions.
- b. Grouping equipments by actual application as well as type.

The objectives of ship construction/conversion management require that the data collection system provide the capability of grouping equipments and tasks at more than one level of detail to permit cost and weight estimating and reporting, progress reporting, drawing numbering, and work scheduling and control.

2.3.2 Exhaustiveness of Coverage

For both the EIC and WBS, all ship equipments are covered within the framework of the coding structure (with the exception of boats, which are not currently covered by the WBS).

The principal dissimilarity in the two systems is that, in some cases, equipment items are grouped in a different manner. This is illustrated by Figure 1, which shows the interrelationships between the two coding systems at their first level of breakout. As examples:

- a. The EIC defines six types of propulsion system, whereas the WBS defines propulsion, whatever type, as a single system.
- b. The WBS groups all electronic equipment under the single category "Command and Surveillance", while the EIC establishes separate categories for each major Command and Surveillance system (such as Navigation, Interior Communications, Countermeasures, and others).
- c. In the WBS, Fire Control Systems are included with the Command and Surveillance System, while in EIC they are included with the Ordnance System.

Similar differences prevail at the second and third levels of breakout; however, at each of these levels the coverage of a ship configuration is equally complete under both systems in that essentially all ship equipments can be categorized within the framework of the codes. Both systems can also be expanded to include new systems and equipments.

2.3.3 Discreteness of Coverage

Both the EIC and WBS are based on a logical breakout in which each item at a given level is a distinct entity, separate and non-overlapping with other items at the same level. Hence, both systems are intended as nonredundant indexes of ship configurations. It should be noted, however, that in either coding method it is

extremely difficult to avoid redundancy since certain shipboard equipments or furnishings might be categorized under different codes by different users.

The problems associated with variability in interpretation when assigning codes are essentially the same for both the WBS and the EIC. Application of either coding system requires that equipment groups be defined in terms of their limits and extents.

2.3.4 Degree of Breakout

The EIC provides a breakout of ship configuration into approximately 10,000 equipment items or groups at the third level of indenture (see Figure 2). By comparison, the third level of WBS breakout includes approximately 260 equipment categories. The difference is primarily due to the fact that under the WBS logic, breakout is essentially on the basis of function; while in the EIC system, breakout is on the basis of function, type, and model of equipment (particularly in the areas of electronics and ordnance). Further, the WBS coding scheme, which is limited to the ten numeric digits, acts as a constraint on the degree of breakout possible for the more complex ship systems. The alphanumeric EIC coding scheme is less constraining than the WBS because the EIC has more digits available, and in addition allocates a four-digit number at the third level of breakout versus the three-digit number of WBS.

2.3.5 Universality of Equipment Categories

"Universality" is defined for present purposes as meaning the degree to which the equipment categories established by the two coding systems are applicable to all ships of the Fleet. "Degree of universality" therefore connotes the amount of tailoring necessary in applying an indexing system to a given ship. On the basis of the above definition, a "totally universal" coding structure is one wherein all categories apply to all ships.

The WBS system, being essentially a functional type breakout, is a more universal type of coding system than is the EIC. For example, at the first level of WBS breakout the seven ship systems apply to all ships. Conversely, of the 28 major systems identified at the first level of breakout under the EIC, between half and three quarters may apply to any given ship.

Similar reasoning applies at the second and third levels of EIC and WBS breakout. For example, using the AO-143 class of ship as a frame of reference, about three-quarters of the Level 2 items of the WBS apply, while about one-third of the Level 2 items of the EIC apply.

EQUIPMENT IDENTIFICATION CODE		WORK BREAKDOWN STRUCTURE						
		100	200	300	400	500	600	700
		HULL STRUCTURE	PROPULSION PLANT	ELECTRIC PLANT	COMMAND AND SURVEILLANCE	AUXILIARY SYSTEMS	OUTFITTING	WEAPONS
1000	ADMIN., HAB., OUTFIT, & FURN.					X		
3000	ELECTRICAL POWER GENERATION			X				
4000	ELECTRICAL POWER DISTRIBUTION			X				
5000	SURFACE MISSILE SYSTEMS				X		X	
7000	AVIATION SHIP INSTALLATION				X			
8000	SPECIALIZED ORDNANCE EQUIP.						X	
9000	EXPENDABLE ORDNANCE						X	
A000	HULL STRUCTURE	X						
B000	PROP, MN DIES, MECH. DRIVE		X					
C000	PROP, MN DIES, ELEC. DRIVE		X					
D000	PROP, MN-GAS TURB., MECH. DRIVE		X					
E000	PROP, MN-GAS TURB., ELEC. DRIVE		X					
F000	PROP, MN-ST, MECH. DRIVE		X					
G000	GUN SYSTEMS				X		X	
H000	NAVAL INTEL. PROC. SYSTEMS				X			
J000	ASW SYSTEMS/UW. SYSTEMS				X		X	
K000	PROP, MN-ST, ELEC. DRIVE		X					
L000	NAVIGATION SYSTEMS				X			
M000	INTERIOR COMMUNICATION SYSTEMS				X			
N000	COUNTERMEASURE SYSTEMS				X			
P000	RADAR AND IFF SYSTEMS				X			
Q000	COMMUNICATION AND DATA SYSTEMS				X			
R000	SONAR SYSTEMS				X			
T000	AUXILIARY SYSTEMS					X		
W000	ELECTRONIC TEST EQUIPMENT				X			
Y000	BOATS, STOWAGE AND HANDLING							

Figure 1. Interrelationship of EIC and WBS at First Level of Breakout

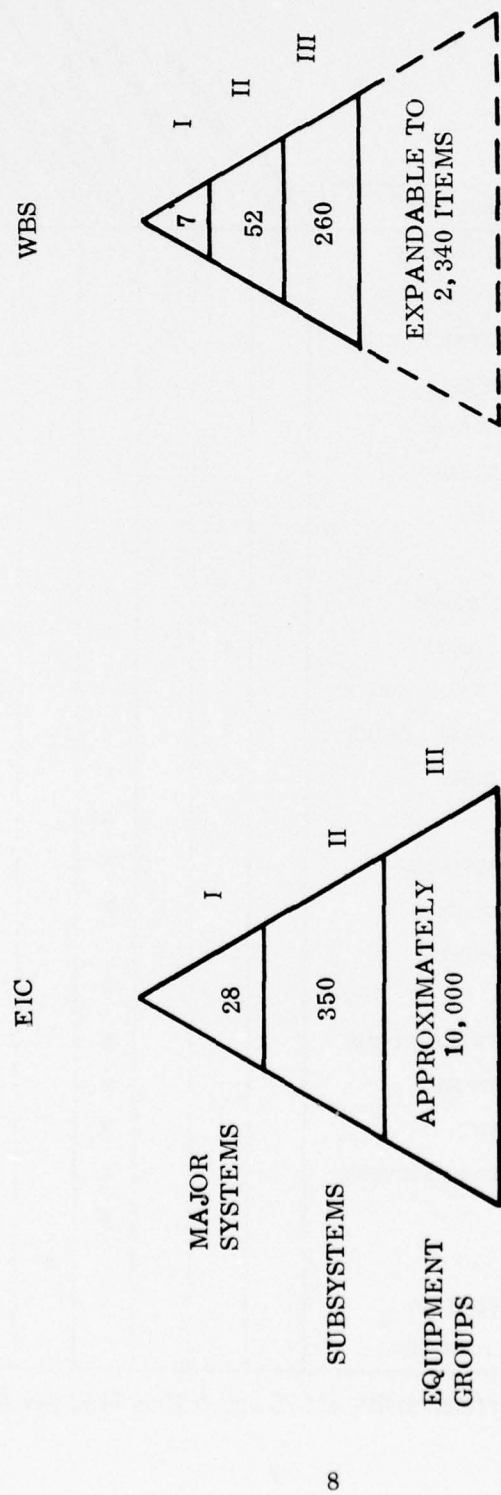


Figure 2. Comparison of EIC and WBS in Degree of Breakout

COMMON LANGUAGE CONSIDERATIONS

3.1 STRUCTURE AND CODING

A configuration accounting system has two attributes that define the components within the system – its structure and its coding scheme. The structure defines the groupings and divisions of the various categories of systems, subsystems, and equipment that collectively make up a ship. The basic groundrules and logic used in developing this structure determines the usefulness of the accounting system. Both the EIC and WBS have a top-down breakout type of structure, characterized by an increasingly detailed breakdown of equipment. This approach is illustrated in Figure 3. Note from this figure that the ship can be completely described at any level, by selecting all applicable systems or equipment; and that each level of breakout can be described as the sum of all applicable equipment directly below it.

The coding applied to the various groupings provides a means of identifying specific systems or equipment. This permits efficient automatic data processing and provides a means of recognizing the higher groupings to which an individual equipment belongs.

Two approaches can be taken in structuring and coding a system:

- a. Define the coding scheme and assign all equipment into groupings as defined by the coding logic. The WBS and, to a lesser extent, the EIC use this approach. This method has the disadvantage of requiring some equipments and/or systems to be force-fitted into categories only because no other code is available.
- b. Define the structure and then develop a code that permits automatic data processing. This results in a more complex coding system, but does allow more flexibility in grouping similar items and assures that items of equal complexity are grouped on the same level of the breakout.

Some of the problems associated with both WBS and EIC as a common language trace back to the coding scheme for defining the structure. The anticipated use of

EIC for maintenance accounting and the WBS for ship construction placed limitations on both that prevent them from being useful as a generally applicable language.

3.2 COMBINED EIC/WBS

If it is presumed that equipment groupings of the EIC provide the information that the maintenance manager needs, and that those of the WBS provide the information that the new construction/conversion manager needs, then one approach to a common-language system is to investigate a merger or a combination of the two. The needs of not only the manager but also the analyst must be considered in the structuring of a merged system. If a single structure can be developed that meets all user requirements, then an arbitrary coding system can be assigned to the groupings to permit machine processing of the data.

Toward this end, let us first consider the EIC at the system level. There we find 28 systems, as shown in Figure 4. In studying these systems, we find that many of them are generally the same. For example, six different codes are used to define the propulsion systems available, and five codes are used to define the weapons suite aboard the ship. Figure 5 shows the same 28 systems rearranged and grouped into like systems. There are now seven major groupings, similar to the seven major equipment groupings of the WBS. This suggests a method for combining the two configuration accounting methods to provide a single system of general usefulness.

3.3 TECHNIQUE

To retain maximum usefulness of past data collection efforts while providing the ability to collect/analyze/group data in a manner useful to all, it would be desirable to generally maintain the present internal structure and definition of subsystems and of elements within these subsystems. The first step toward that end is to analyze the EIC and WBS to determine differences and similarities in their structures. As discussed previously, the first-level EIC and WBS systems can be grouped as shown in Figure 5. This similarity suggests a merged system having a first level similar to that of WBS and the second level similar to that of EIC, as illustrated in Figure 6. Note here that for ordnance and electronics the subsystem "building blocks" are moved down one level. This is further illustrated in Figure 7, which shows the ordnance system broken down to the first three levels. The present degree of detail provided by the EIC could be retained by adding a fourth level.

One concept of a configuration accounting system is to retain like groupings – those equipment groupings of comparable complexity and importance – at the same level. This approach facilitates handling of data. Examples of second- and third-level groupings are presented in Figure 8. It will be noted that with this concept, groupings on the same level are more consistent than they are in the EIC.

This quick look at similarities shows that, at least on the upper level, enough commonality exists to permit a single language. However the combined system, as exemplified in Figures 6, 7, and 8, is still heavily oriented toward the EIC. Further investigation is necessary to determine if the second- and third-level breakdowns are suitable for WBS users.

SHIP'S CONFIGURATION

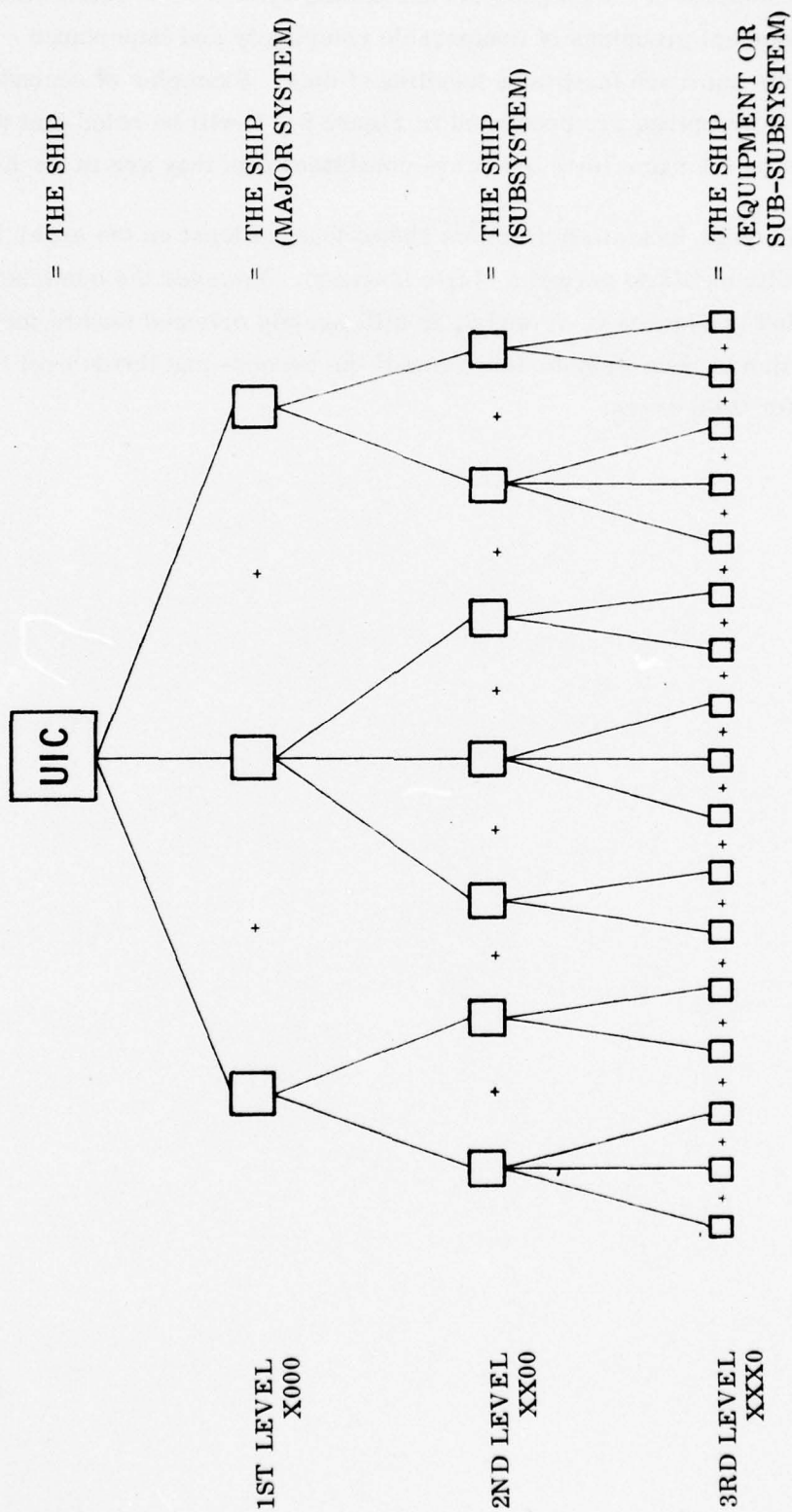


Figure 3. Top-Down Breakout Structure Concept

EIC - 28 SYSTEMS

1000	ADMINISTRATION, HABITABILITY, OUTFIT/FURNISHINGS
3000	ELECTRIC POWER GENERATION SYSTEMS
4000	ELECTRIC POWER DISTRIBUTION SYSTEMS
5000	SURFACE MISSILE SYSTEMS
7000	AVIATION SHIP INSTALLATION
8000	SPECIALIZED ORDNANCE EQUIPMENT
9000	EXPENDABLE ORDNANCE
A000	HULL STRUCTURE
B000	PROPULSION SYSTEM, MAIN DIESEL, MECHANICAL DRIVE
C000	PROPULSION SYSTEM, MAIN DIESEL, ELECTRIC DRIVE
D000	PROPULSION SYSTEM, MAIN-GAS TURBINE, MECHANICAL DRIVE
E000	PROPULSION SYSTEM, MAIN-GAS TURBINE, ELECTRICAL DRIVE
F000	PROPULSION SYSTEM, MAIN-STEAM, MECHANICAL DRIVE
G000	GUN SYSTEMS
H000	NAVAL INTELLIGENCE PROCESSING SYSTEMS (NIPS)
J000	ASW SYSTEMS/UW SYSTEMS
K000	PROPULSION SYSTEM, MAIN-STEAM, ELECTRIC DRIVE
L000	NAVIGATION SYSTEMS (ELECTRONIC AND NON-ELECTRONIC)
M000	INTERIOR COMMUNICATION SYSTEMS
N000	COUNTERMEASURE SYSTEMS (ELECTRONIC/NON-ELECTRONIC)
P000	RADAR AND IFF SYSTEMS
Q000	COMMUNICATIONS AND DATA SYSTEMS
R000	SONAR SYSTEMS
T000	AUXILIARY SYSTEMS
U000	SUPPORT SERVICES, MAINTENANCE
W000	ELECTRONIC TEST EQUIPMENT
Y000	BOATS, BOAT STOWAGE AND HANDLING
Z000	SPECIAL/MISCELLANEOUS/UNCODED ITEMS

Figure 4. First-Level Breakout of EIC Systems

EIC MERGED INTO 7 WBS-LIKE SYSTEMS

1000	ADMINISTRATION, HABITABILITY, OUTFIT/ FURNISHINGS	}	ADMIN/HAB/OUTFIT
Y000	BOATS, BOAT STOWAGE AND HANDLING		
3000	ELECTRIC POWER GENERATION SYSTEMS	}	ELECTRIC POWER
4000	ELECTRIC POWER DISTRIBUTION SYSTEMS		
5000	SURFACE MISSILE SYSTEMS	}	ORDNANCE
8000	SPECIALIZED ORDNANCE EQUIPMENT		
9000	EXPENDABLE ORDNANCE		
G000	GUN SYSTEMS		
J000	ASW SYSTEMS/UW SYSTEMS	}	HULL STRUCTURE
A000	HULL STRUCTURE		
B000	PROPULSION SYSTEM, MAIN DIESEL, MECHANICAL DRIVE	}	PROPULSION
C000	PROPULSION SYSTEM, MAIN DIESEL, ELECTRICAL DRIVE		
D000	PROPULSION SYSTEM, MAIN-GAS TURBINE, MECHANICAL DRIVE		
E000	PROPULSION SYSTEM, MAIN-GAS TURBINE, ELECTRICAL DRIVE		
F000	PROPULSION SYSTEM, MAIN-STEAM, MECHANICAL DRIVE		
K000	PROPULSION SYSTEM, MAIN-STEAM, ELECTRICAL DRIVE		
H000	NAVAL INTELLIGENCE PROCESSING SYSTEMS (NIPS)	}	COMMAND AND SURVEILLANCE
L000	NAVIGATION SYSTEMS (ELECTRONIC AND NON-ELECTRONIC)		
M000	INTERIOR COMMUNICATION SYSTEMS		
N000	COUNTERMEASURE SYSTEMS ELECTRONIC/ NON-ELECTRONIC		
P000	RADAR AND IFF SYSTEMS		
Q000	COMMUNICATIONS AND DATA SYSTEMS		
R000	SONAR SYSTEMS	}	AUXILIARY SYSTEMS
W000	ELECTRONIC TEST EQUIPMENT		
T000	AUXILIARY SYSTEMS		
7000	AVIATION SHIP INSTALLATION	}	NONSHIP ITEM
Z000	SPECIAL/MISCELLANEOUS/UNCODED ITEMS		
U000	SUPPORT SERVICES, MAINTENANCE	}	

Figure 5. Rearrangement of EIC First-Level Systems into Common Groupings

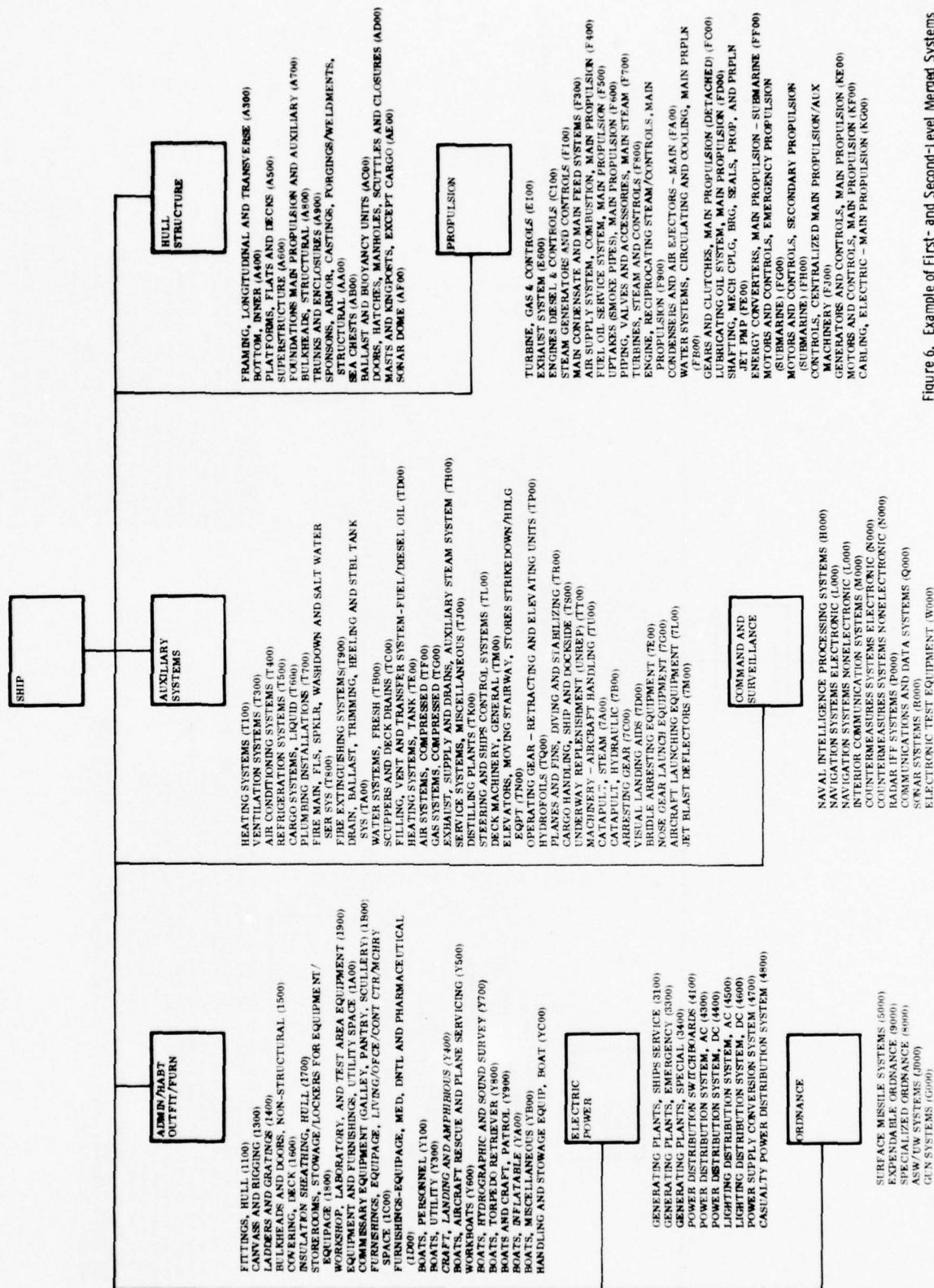
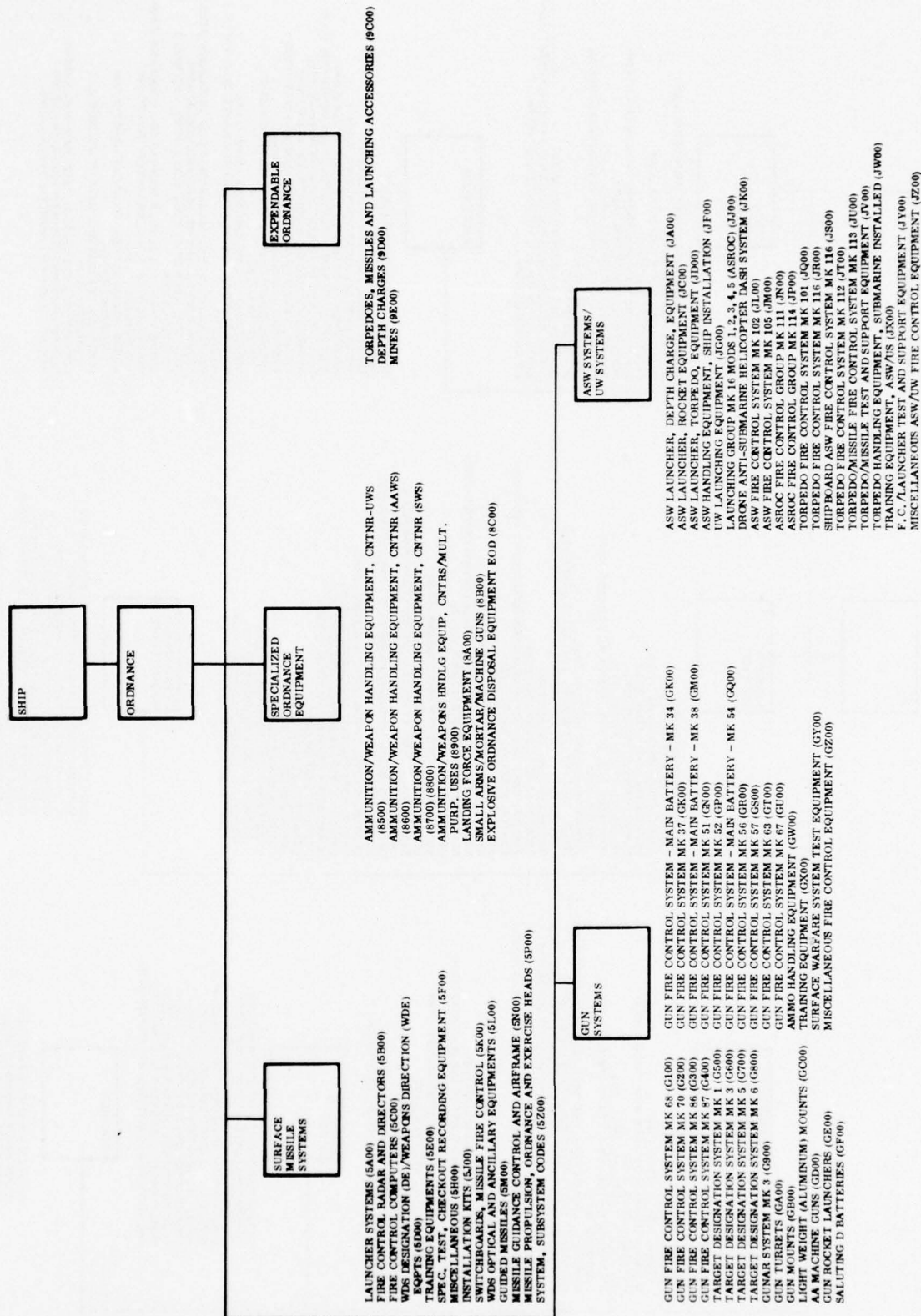


Figure 6. Example of First- and Second-Level Merged Systems



C800
LUBE OIL
SERVICE
SYSTEM
(DETACHED)

R000
SONAR SYSTEMS

4300
POWER
DISTRIBUTION
SYSTEM, AC

1100
FITTINGS,
HULL

- 1101 LASHING, MOORING AND TOWING FITTINGS
- 1103 SAFETY AND GUARD FITTINGS
- 1105 STOWAGE BOXES
- 1106 CATHODIC PROTECTION SYSTEM
- 1107 PLATFORMS
- 1108 MISCELLANEOUS FITTINGS
- 4301 PANEL, POWER, CIRCUIT BREAKER
- 4303 PANEL, POWER, FUSED
- 4304 TRANSFORMERS
- 4305 OUTLET, POWER
- 4306 SHORE POWER HOOKUP SYSTEM
- 4307 SUBMERSIBLE CABLING SYSTEM (SUBMARINE)
- 4308 GROUND DETECTION EQUIPMENT
- 4309 BUS TRANSFER, AUTOMATIC
- 430A BUS TRANSFER, MANUAL
- 430B CABLING, DISTRIBUTION
- 430C CABLING SYSTEM, SHIP ALONGSIDE (TENDERS)
- R100 SONAR SYSTEMS, SEARCH
- R300 SONAR SYSTEMS, VARIABLE DEPTH
- R400 SONAR SYSTEMS, CLASSIFICATION
- R500 SONAR SYSTEMS, NAVIGATION
- R600 SONAR, UNDERWATER COMMUNICATION
- R700 SONAR SYSTEM, BATHYTHERMOGRAPH
- R800 SONAR SYSTEMS, SPECIAL PURPOSE
- R900 SONAR SYSTEMS, PASSIVE
- RA00 AUXILIARY DEVICES, SONAR
- C801 SERVICE GROUP
- C803 SAMPLING/PRIMING GROUP
- C804 TRANSFER AIR/FOR STANDBY GROUP
- C805 PURIFICATION AND CLEANING GROUP

AD00
DOORS, HATCHES,
MANHOLES,
SCUTTLES AND
CLOSURES

TD00
FILLING, VENT
AND TRANSFER
SYSTEM-FUEL/
DIESEL OIL

G000
GUN SYSTEMS

- G100 GUN FIRE CONTROL SYSTEM MK 68
- G200 GUN FIRE CONTROL SYSTEM MK 70
- G300 GUN FIRE CONTROL SYSTEM MK 76
- G400 GUN FIRE CONTROL SYSTEM MK 87
- G500 TARGET DESIGNATION SYSTEM MK 1
- G600 TARGET DESIGNATION SYSTEM MK 3
- G700 TARGET DESIGNATION SYSTEM MK 5
- G800 TARGET DESIGNATION SYSTEM MK 6
- G900 GUNAR SYSTEM MK 3
- GAD0 GUN TURRETS
- GB00 GUN MOUNTS
- GC00 LIGHT WEIGHT (ALUMINUM) MOUNTS
- GD00 AA MACHINE GUNS
- GE00 GUN ROCKET LAUNCHERS
- GF00 GUN ROCKET LAUNCHERS
- GK00 GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 34
- GL00 GUN FIRE CONTROL SYSTEM MK 37
- GM00 GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 38
- GN00 GUN FIRE CONTROL SYSTEM MK 51
- GP00 GUN FIRE CONTROL SYSTEM MK 52
- QQ00 GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 54
- GR00 GUN FIRE CONTROL SYSTEM MK 56
- GS00 GUN FIRE CONTROL SYSTEM MK 57
- GT00 GUN FIRE CONTROL SYSTEM MK 63
- GU00 GUN FIRE CONTROL SYSTEM MK 67
- GW00 AMMO HANDLING EQUIPMENT
- GX00 TRAINING EQUIPMENT
- GZ00 MISCELLANEOUS FIRE CONTROL EQUIPMENT
- TD01 FILLING SYSTEM, DIESEL OIL
- TD03 VENTING SYSTEM, DIESEL OIL
- TD04 PUMPS, TRANSFER, DIESEL OIL
- TD05 PUMPS, TRANSFER, DIESEL OIL
- TD06 FILLING SYSTEM, FUEL OIL
- TD07 VENTING SYSTEM, FUEL OIL
- TD08 PIPING AND ACCESSORIES, FUEL OIL TRANSFER
- TD09 PUMPS, TRANSFER, FUEL OIL
- TD0A FILLING SYSTEM, FUEL OIL
- TD0B TRANSFER SYSTEM, FUEL OIL
- AD01 DOORS
- AD03 STERN GATES
- AD04 HATCHES
- AD05 HATCHES
- AD06 PORTS, MANHOLES AND SCUTTLES

Figure 8. Sampling of Third-Level Groups From Each First-Level Group Showing Items of Similar Complexity

DETAILED ANALYSIS OF MERGED WBS/EIC

A merged WBS/EIC system is best illustrated in the context of a detailed comparison of the WBS and EIC systems, showing how their similarities make a merger feasible, and how their dissimilarities can be compensated for.

A detailed comparison of the WBS and EIC systems is difficult because of the great number of individual items in each (approximately 10,000 for EIC, 250 for WBS). The best approach is therefore to start with a relatively simple system and investigate its similarities, and then progress to more complicated systems.

Next, for this analysis, a further description of limits and extents of the various listings is needed than appears in the two basic indexes. For the EIC, the old (pre-1971) seven-digit index was used, since it is documented in greater detail than the present index. For the WBS, the proposed index with fourth-level expansion and text description was utilized.

The first system chosen for comparison is the one defined in the EIC as "A000 Hull Structure" and in the WBS as "100 Hull Structure". Figure 9 shows the three-level breakdown for both the EIC and WBS. Arrows connect the common groupings between the EIC and WBS. Note that some of the commonality is present only at the second level, some only at the third level, and some between the second level of one code and third level of the other.

In a few instances a particular equipment may be grouped with certain equipments in one code and with other equipments in another code. In addition there are groupings unique to individual codes, generally for specialized equipments such as floating drydocks and catamarans. Any coding system requires arbitrary decisions as to the assigned grouping for these special cases.

On the basis of the similarities shown in Figure 9, a merged system for the Hull Structure was developed as shown in Figure 10. The arrows show the relationship of the EIC and WBS to the merged system. It should be noted that no attempt was made here to evaluate either EIC or WBS to determine if the degree of breakout was appropriate for the users' needs. For example there is some feeling that, in the EIC code A400-Inner Bottom, there is no need for three codes A401, A403, and A404 at

the third level; a single code would probably be sufficient for management purposes. The primary consideration in deriving the merged structure was to ensure that both the WBS- and EIC-oriented managers would be able to retrieve information in the same groupings as they now do.

The arrows in Figure 10 primarily show the interrelationships between the second level of WBS and EIC. The relationship between the two systems can be further seen by examining the third-level breakout. Consider the Shell and Supporting Structure portion of the merged system in Figure 11. This is covered in the WBS by code 110 and its breakout, and in the EIC by codes A100, A300, A400 and their breakouts. It can be noted that, should the EIC-oriented analyst desire to collect data concerning A101-Plating, he would use both the group called Shell Plating and the group called Shell Appendages in the merged structure. Similarly, the WBS-oriented analyst wishing to collect data for group 111 would use both the Shell Plating and Shell Planking groups for the merged set.

The merged grouping of seven top-level systems results in a change in level for some items as compared with their EIC level. This is illustrated in Figure 12 for part of the Ordnance System. Again, the EIC, WBS, and merged structures are presented. It should be noted that the equipment listings shown in the EIC would be moved from the third level to the fourth level. This is indicated in Table 1, in which the degree of indentation defines the various levels of breakout.

In addition to equipment groupings, it would be necessary to add to the merged system non-equipment accounts similar to WBS 701, 702, etc., to suit the needs of the construction manager. The needs of the maintenance manager and analyst for ordnance data at the Mark-Mod equipment level can be met by using the fourth level of breakout.

An example of an electronics system in merged form is shown in Figure 13. Here, as for ordnance, the non-equipment accounts would be added for the construction manager while fourth-level breakout would provide the maintenance personnel with equipment level data.

From the analysis, it is clear that a merged configuration accounting system can be developed to meet the needs of both the maintenance manager and the new construction/conversion manager. The examples shown are not necessarily those that most efficiently meet these needs - their purpose is solely to demonstrate the practicality of the merger.

In developing a merged system, further study should be given to the degree of breakout needed by both the new-construction and maintenance managers. This may make it possible to make the second and third levels of breakout even more compatible than they now are. Only second-level breakout may be needed in some areas, while others need fourth- and fifth-level breakout. A study of degree of breakout, combined with a merger of the two systems, could solve some of the internal problems of both.

In addition, to assure maximum use of the data already collected, a cross-reference index would be needed. The three major items to be cross-referenced would be EIC, WBS, and the merged system. It may also be useful to cross reference to BSCI and the "9000 series" (see Section 2).

The final consideration, after having developed the structure of a merged system, would be to determine the appropriate coding scheme. The coding should not limit the structure, and must be compatible with existing data processing techniques. One consideration that should be taken into account is the need for the maintenance manager and the construction manager to retrieve second- and third-level data in different groupings. This problem can be minimized by the use of proper coding techniques.

In conclusion, a merged WBS/EIC system is a feasible common language for configuration accounting within the Navy. The similarities between the two systems could provide the basis for a merged system meeting the management needs of both new construction and maintenance. Determination of the most effective degree of breakout, compilation of cross reference indexes, and development of a coding scheme based on the language structure are additional steps needed to develop the common language.

A000
HULL
STRUCTURE

A100
SHELL PLATING
AND PLANKING

EIC

A300
FRAMING,
LONGITUDINAL
AND
TRANSVERSE

A101
PLATING

A103
PLANKING

A301
LONGITUDINAL
FRAMING

A303
TRANSVERSE
FRAMING

A304
PILLARS AND
STANCHIONS

100
HULL
STRUCTURE

?

WBS

110
SHELL &
SUPPORTING
STRUCTURE

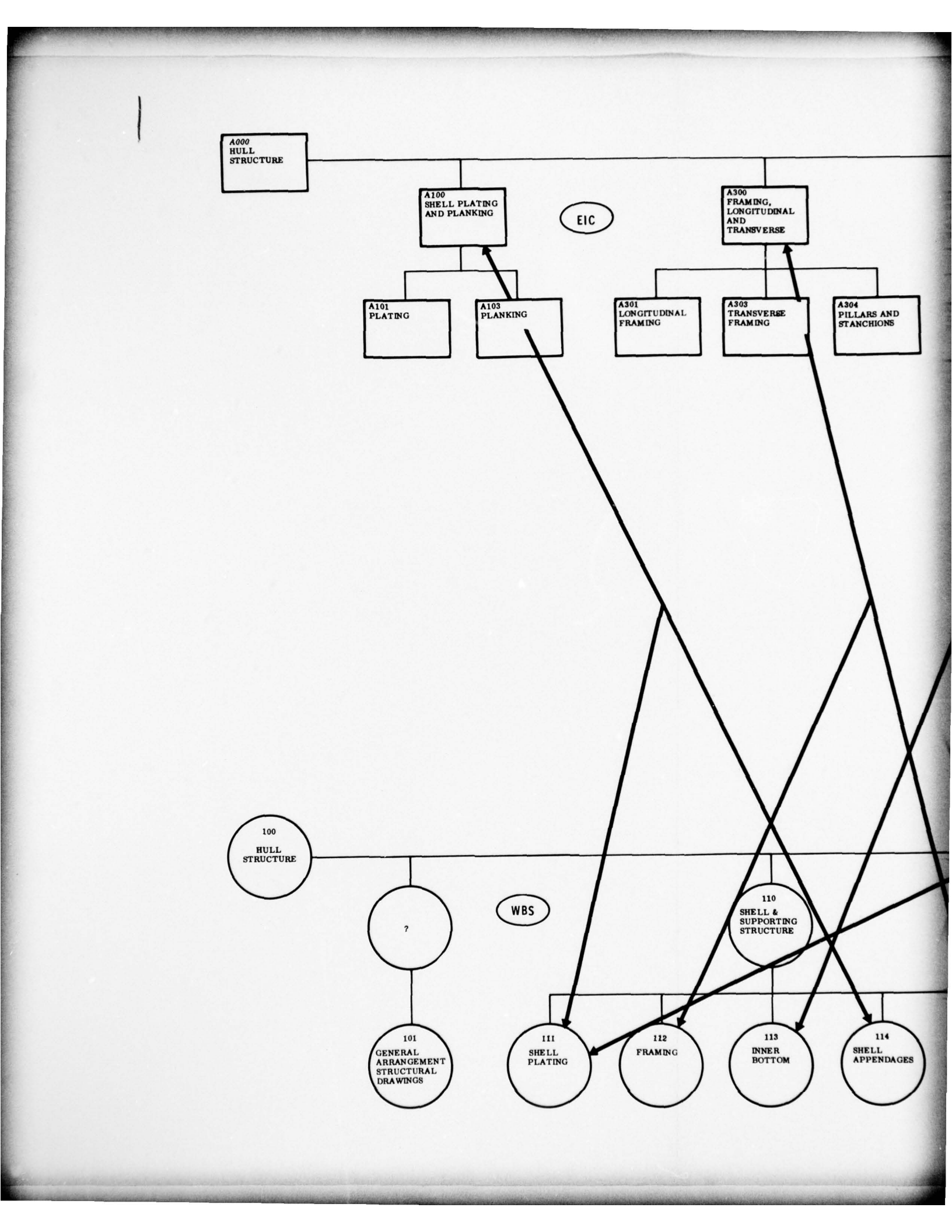
101
GENERAL
ARRANGEMENT
STRUCTURAL
DRAWINGS

111
SHELL
PLATING

112
FRAMING

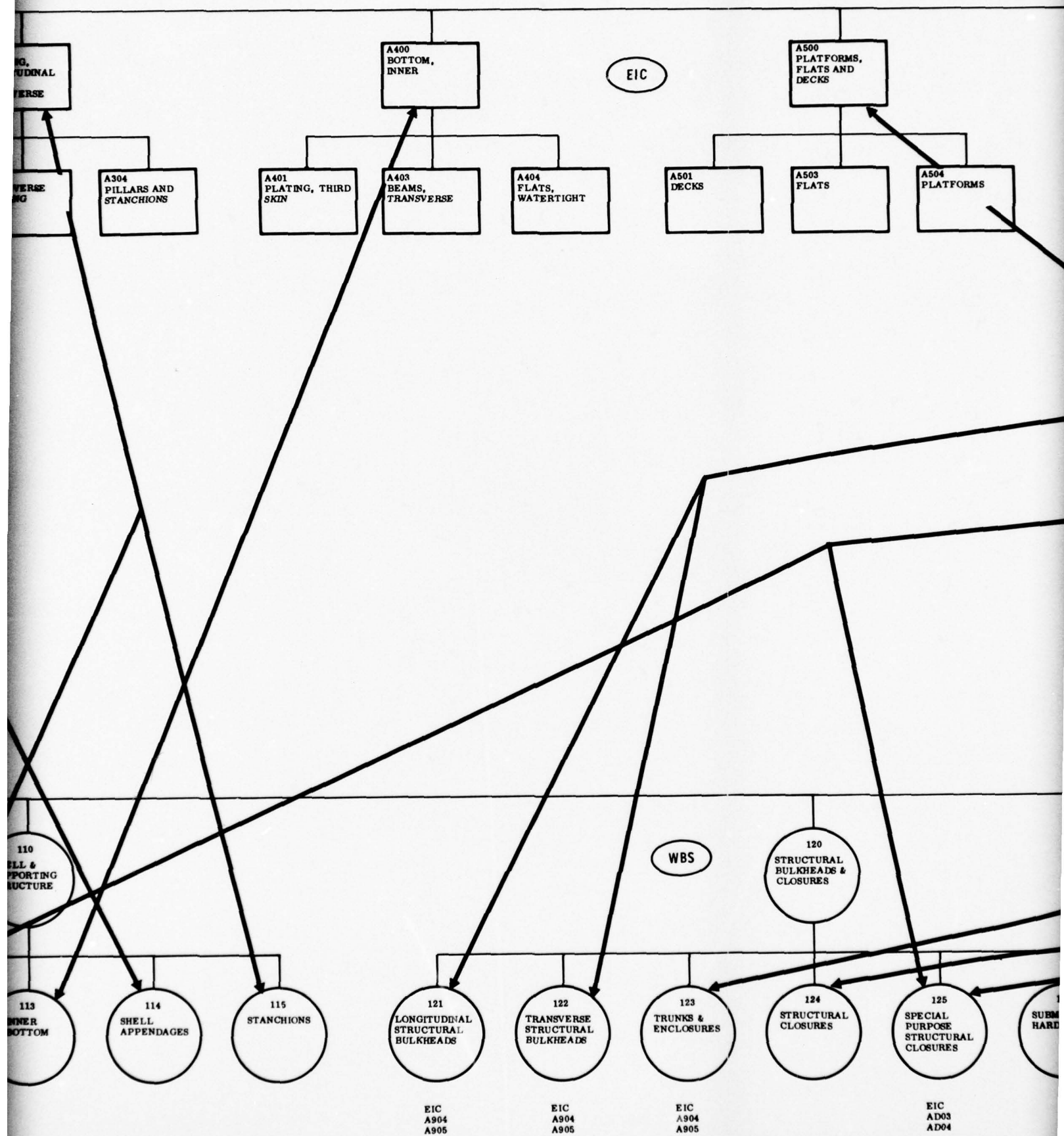
113
INNER
BOTTOM

114
SHELL
APPENDAGES

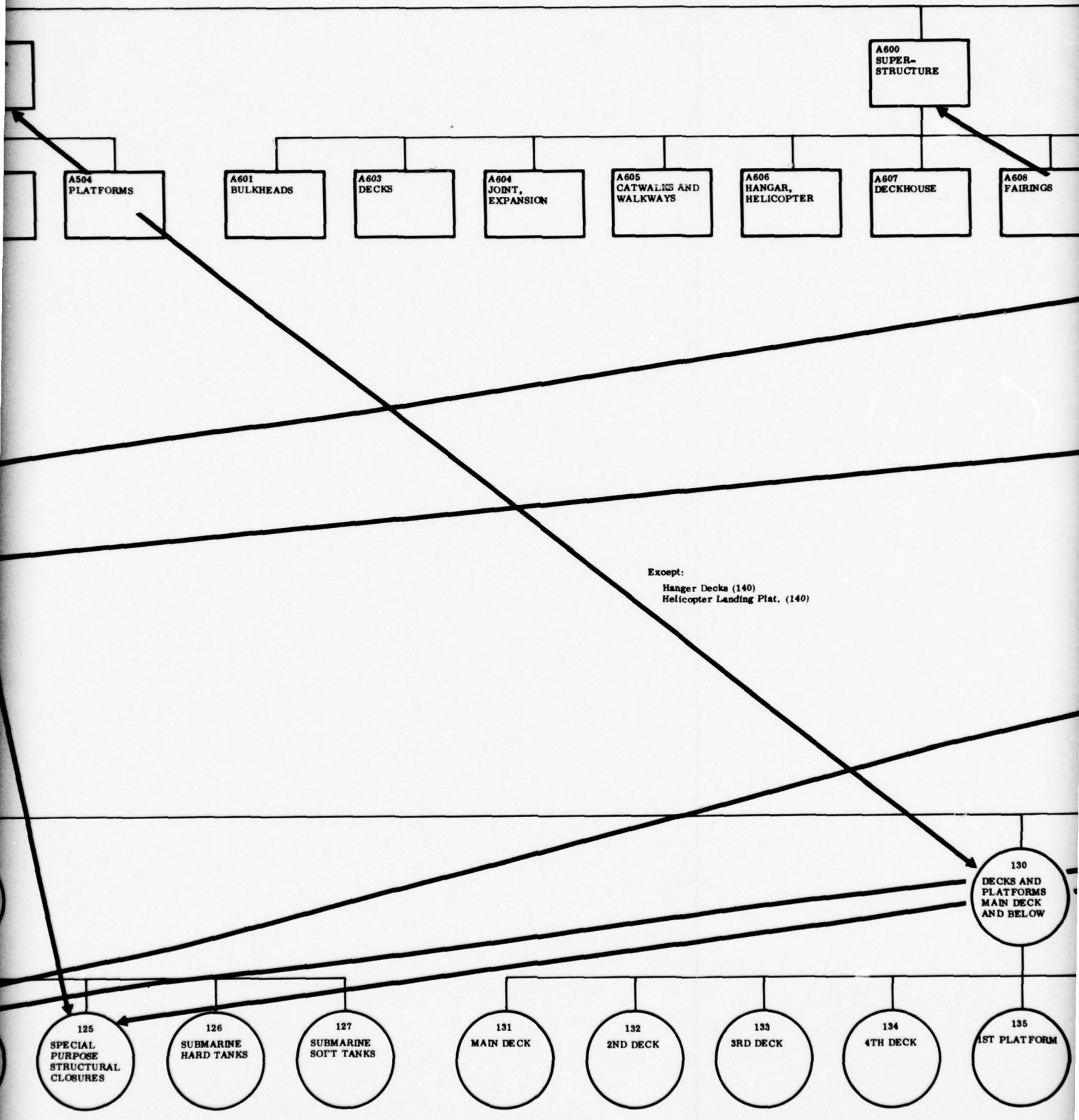


2

1

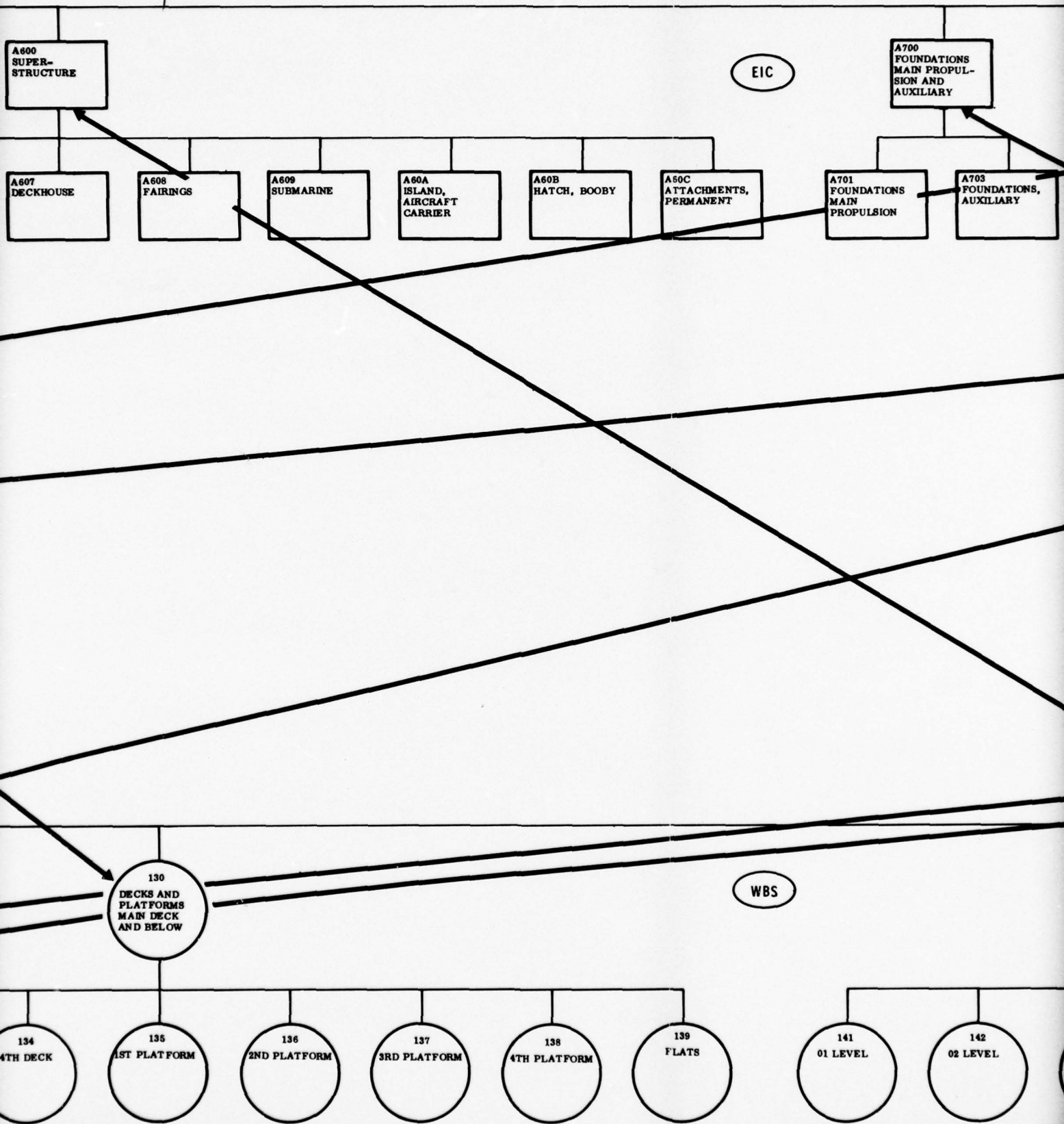


3

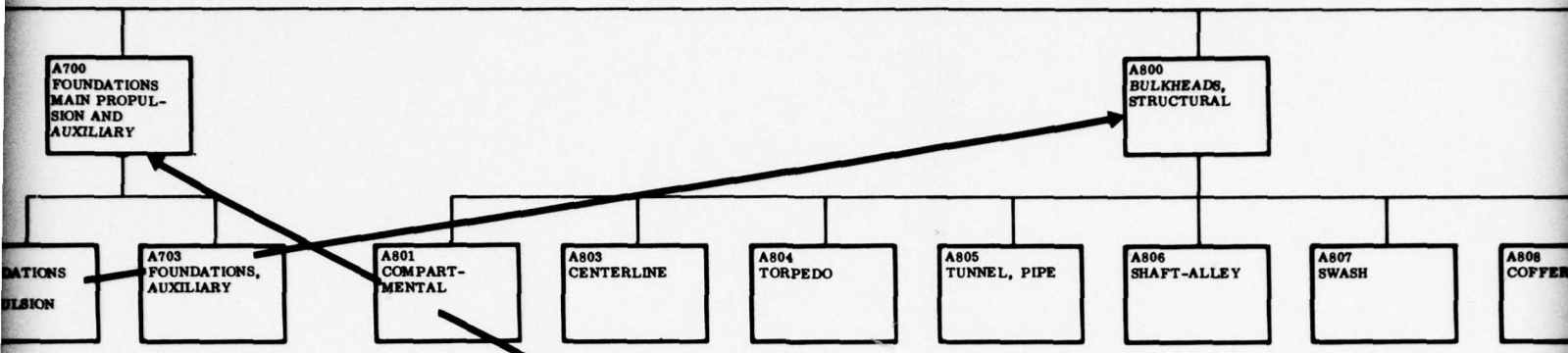


Except:
Hanger Decks (140)
Helicopter Landing Plat. (140)

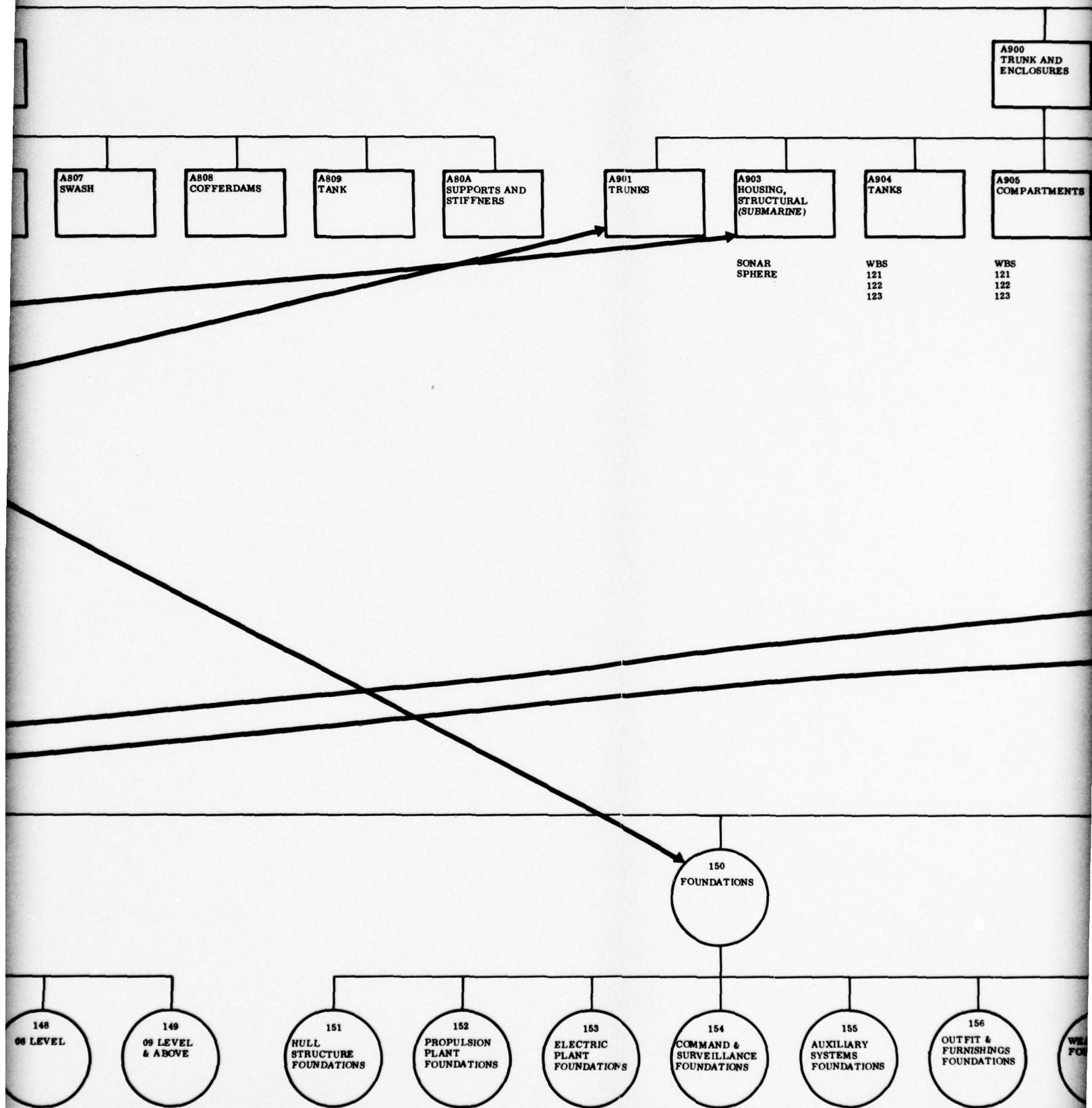
4



5 1



6



7

A900
TRUNK AND
ENCLOSURES

EIC

AA00
SPONSONS,
ARMOR,
CASTING

A904
TANKS

A905
COMPARTMENTS

A906
DOCK BASIN,
FLOATING
DRYDOCK

A907
STERN GATE,
FLOATING
DRYDOCK

A908
FLYING BRIDGE,
FLOATING
DRYDOCK

AA01
CASTINGS

AA03
ARMOR

AA04
SPONSONS

WBS
121
122
123

WBS
121
122
123

VERY SPECIALIZED

WBS

160
STRUCTURES

156
OUTFIT &
FURNISHINGS
FOUNDATIONS

157
WEAPONS
FOUNDATIONS

161
STRUCTURAL
CASTINGS, FOR-
GINGS, & EQUIV.
WELDMENTS

162
STACKS
&
MACKS

163
SEA CHESTS

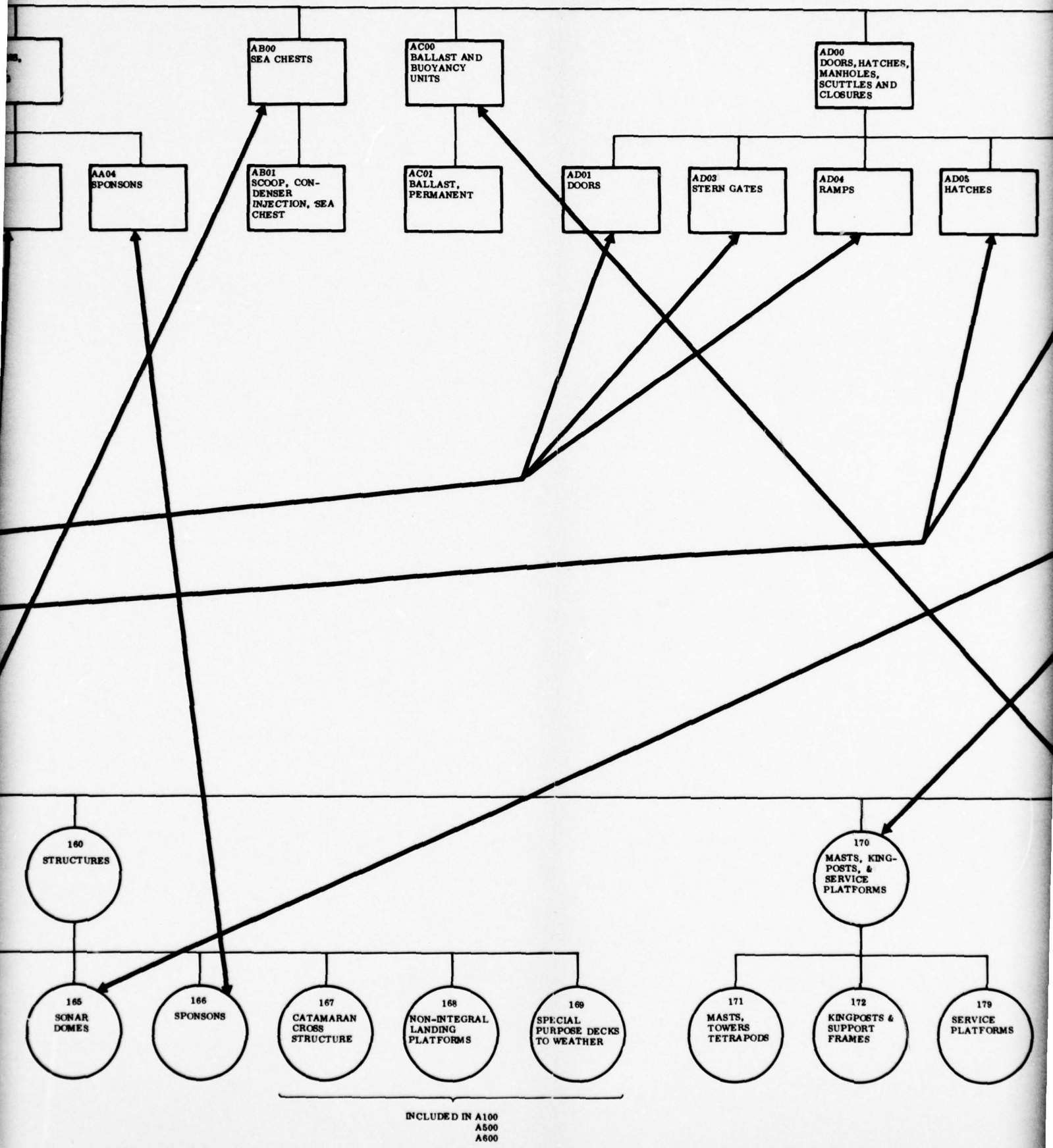
164
BALLISTIC
PLATING

165
SONAR
DOMES

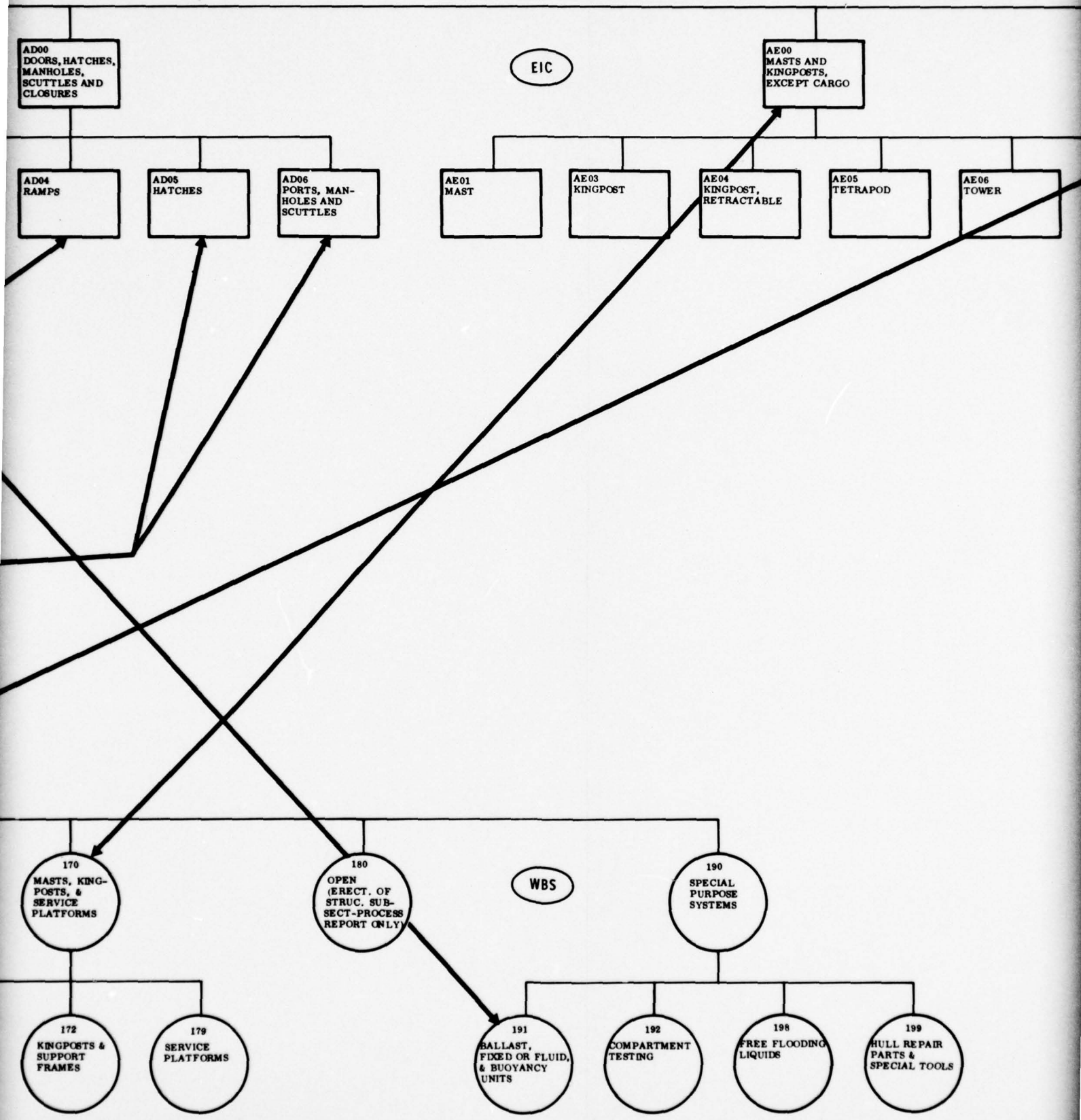
166
SPONSON

EIC
C600
B600
D600

8



9



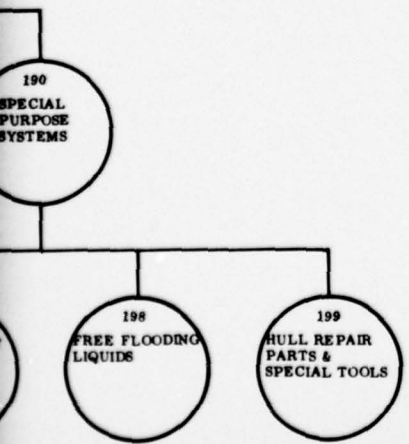
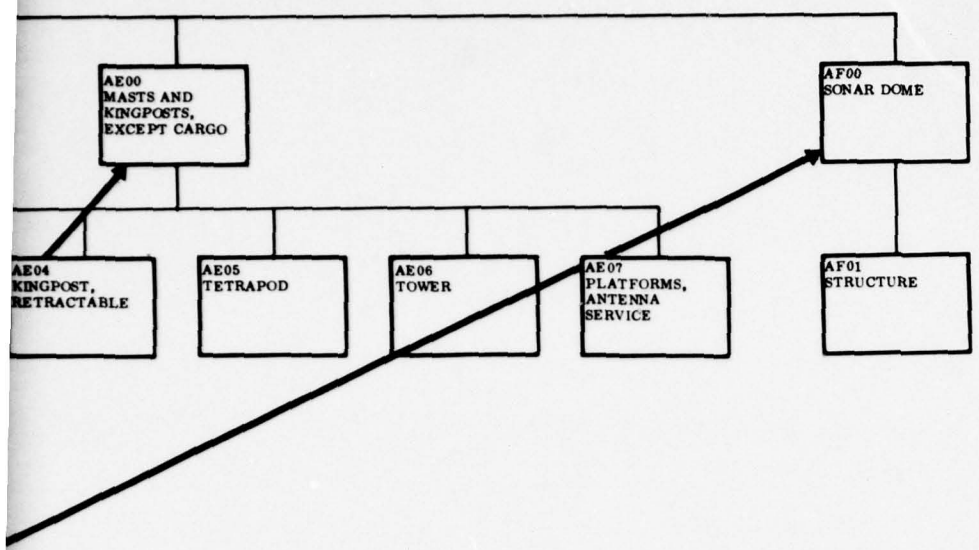
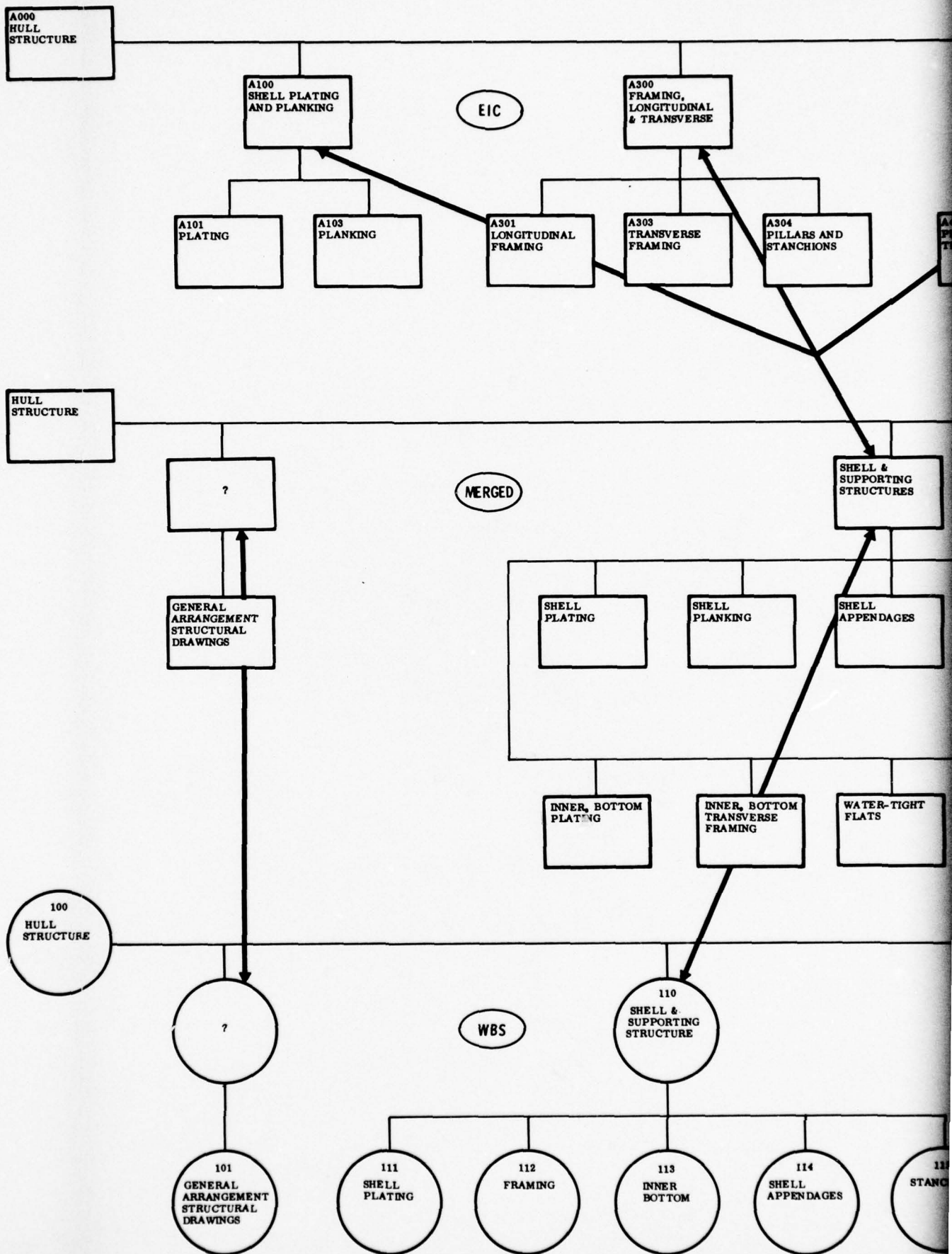
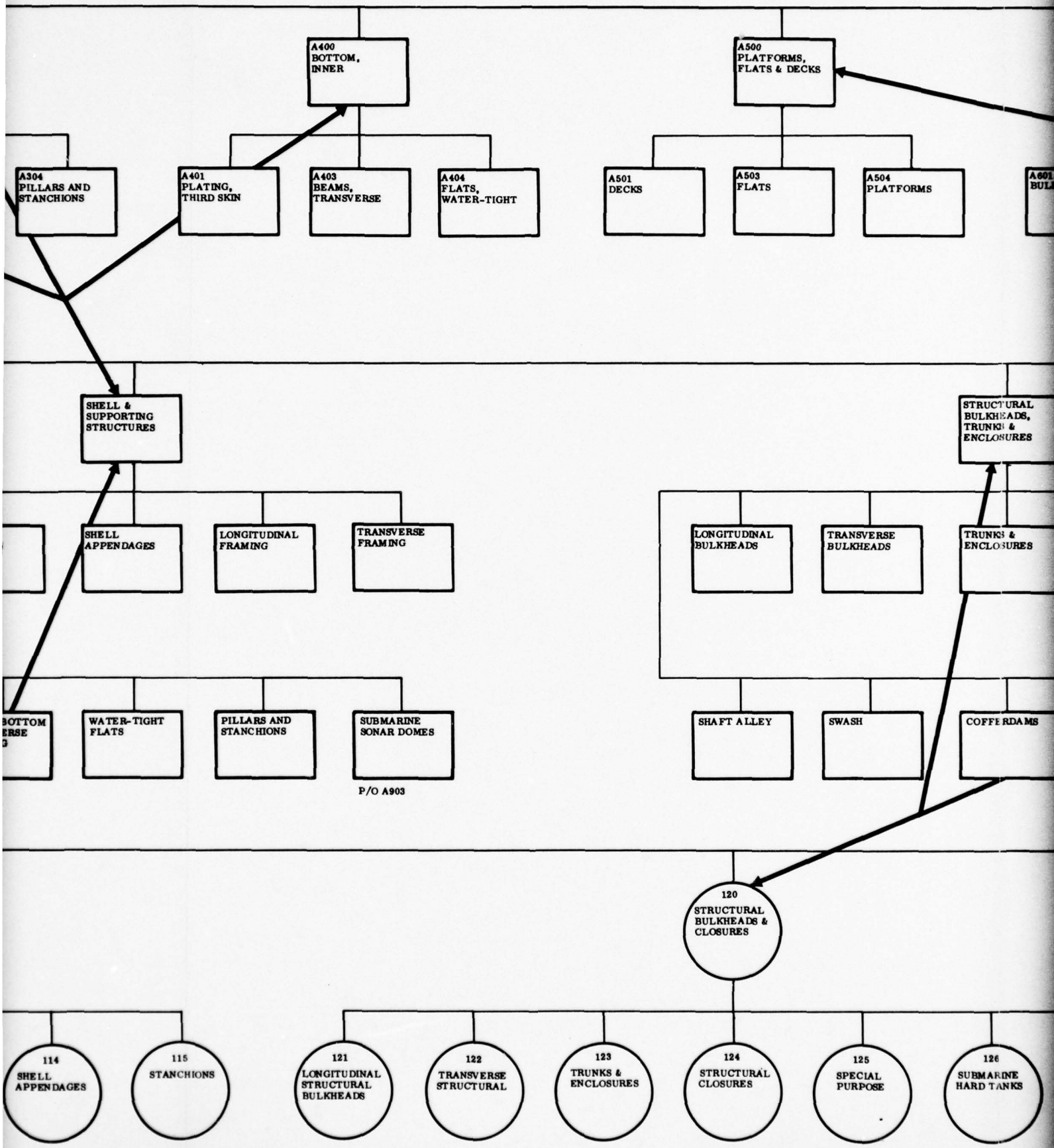


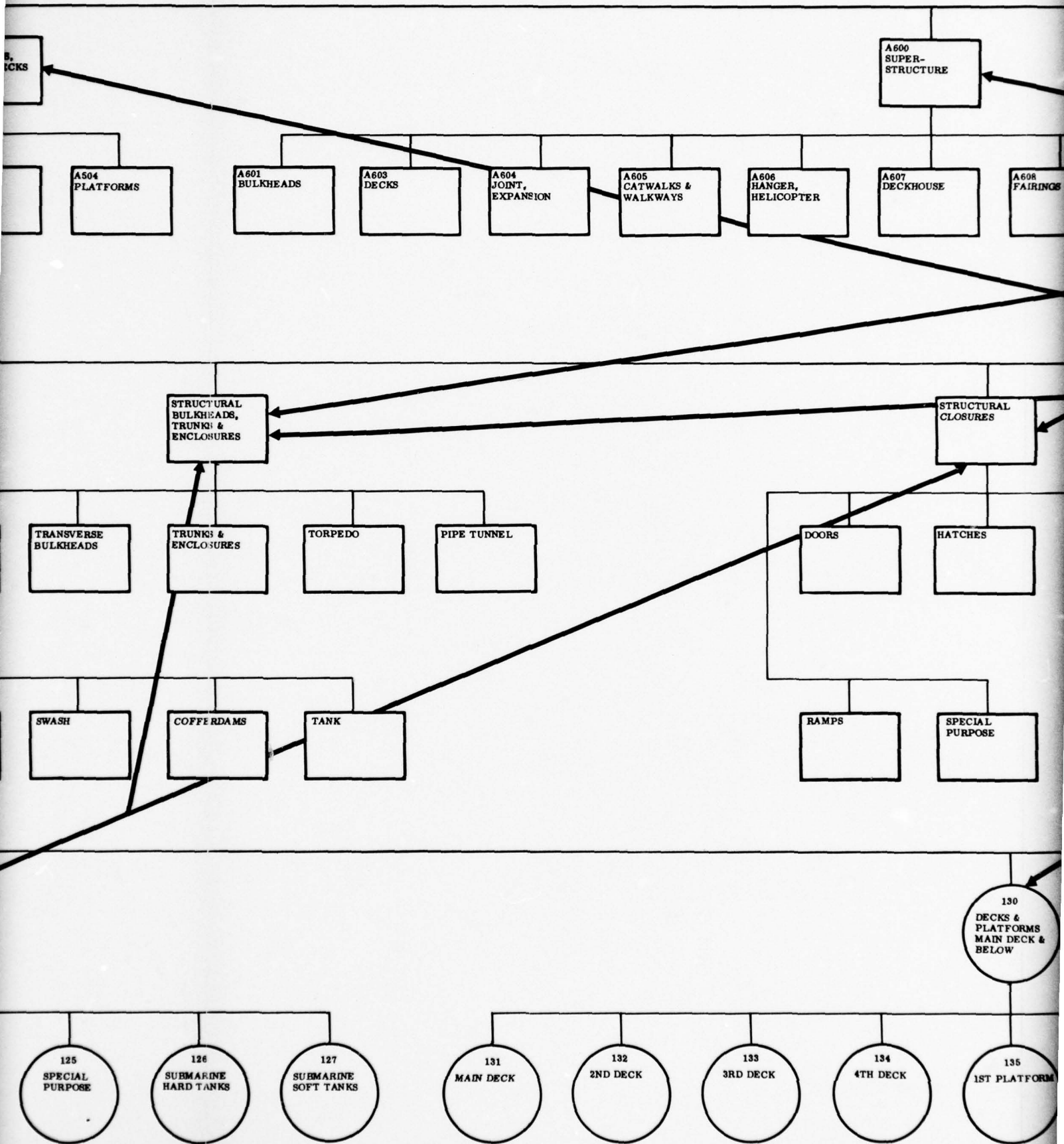
Figure 9. EIC and WBS Staging Diagram - Interrelationships for Hull System



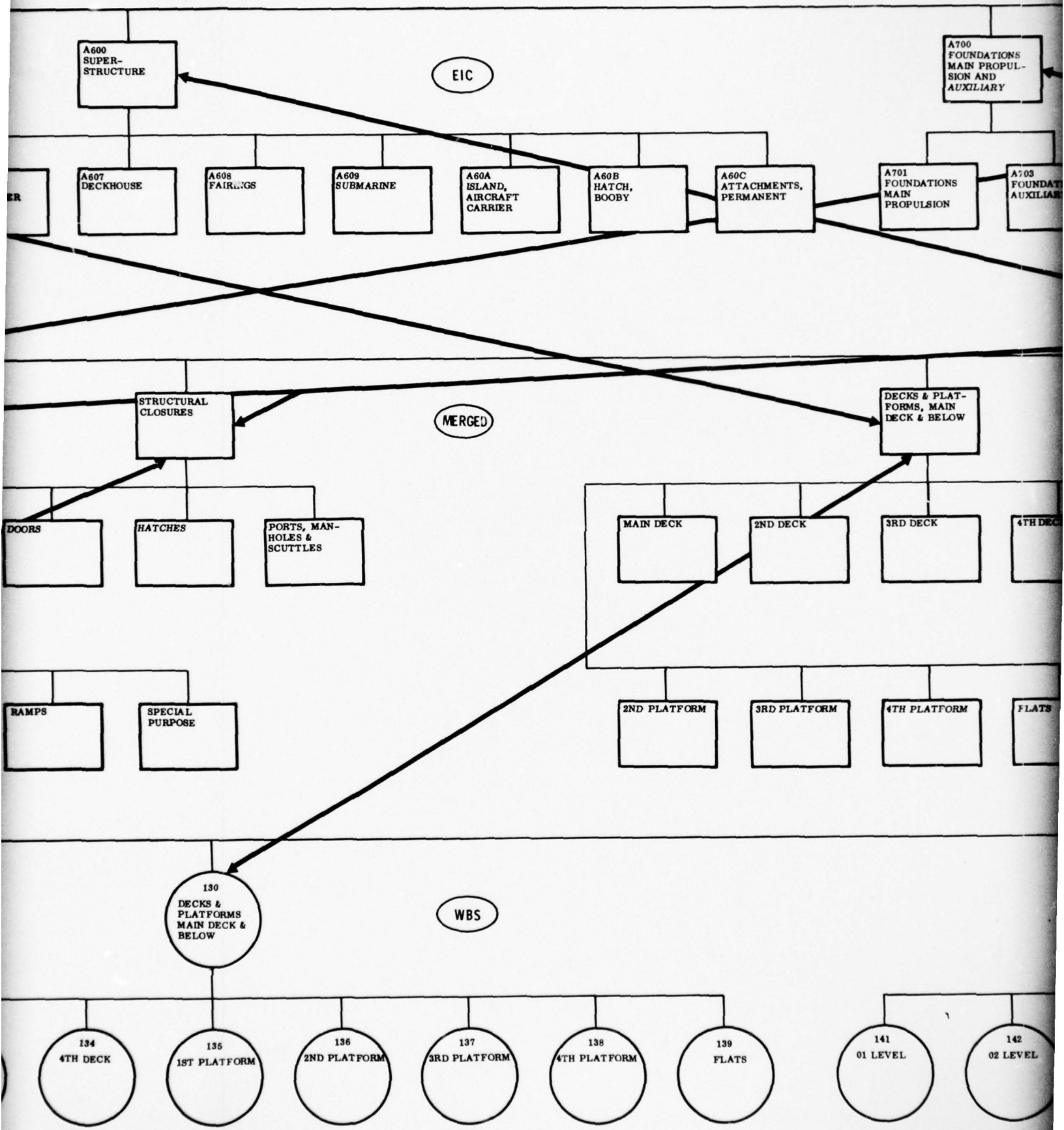
2

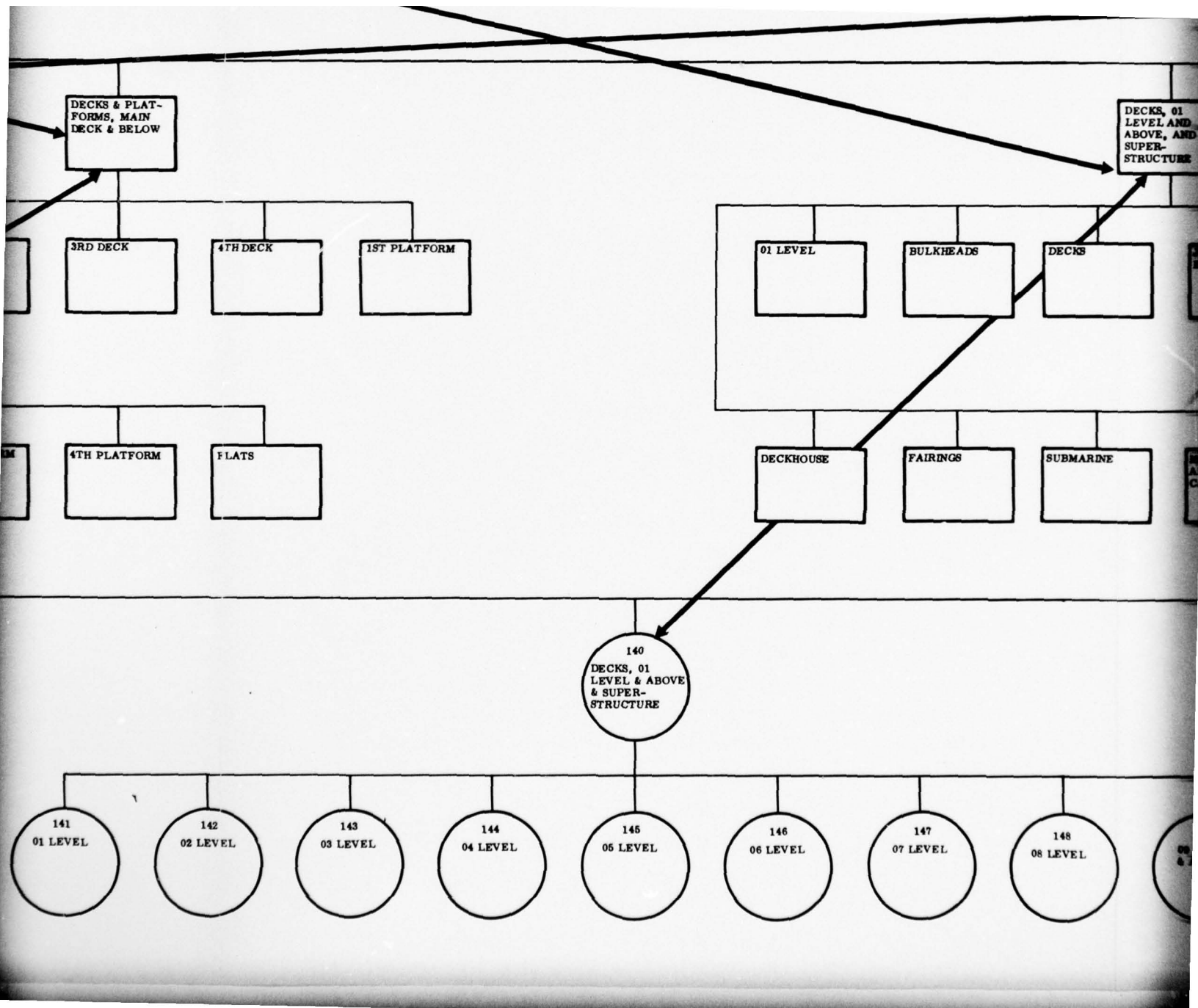


3



4 1





DECKS, 01
LEVEL AND
ABOVE, AND
SUPER-
STRUCTURE

MERGED

HEADS
DECKS
JOINT,
EXPANSION
CATWALKS AND
WALKWAYS
HANGER,
HELICOPTER

WINGS
SUBMARINE
ISLAND,
AIRCRAFT
CARRIER
ATTACHMENTS,
PERMANENT

HULL
STRUCTURE
FOUNDATIONS
PROPULSION
PLANT
FOUNDATIONS
AUXILIARY
SYSTEMS
FOUNDATIONS
OUTFIT &
FURNISHINGS
FOUNDATIONS

WBS

150
FOUNDATIONS

148
08 LEVEL

149
09 LEVEL
& ABOVE

151
HULL
STRUCTURE
FOUNDATIONS

152
PROPULSION
PLANT
FOUNDATIONS

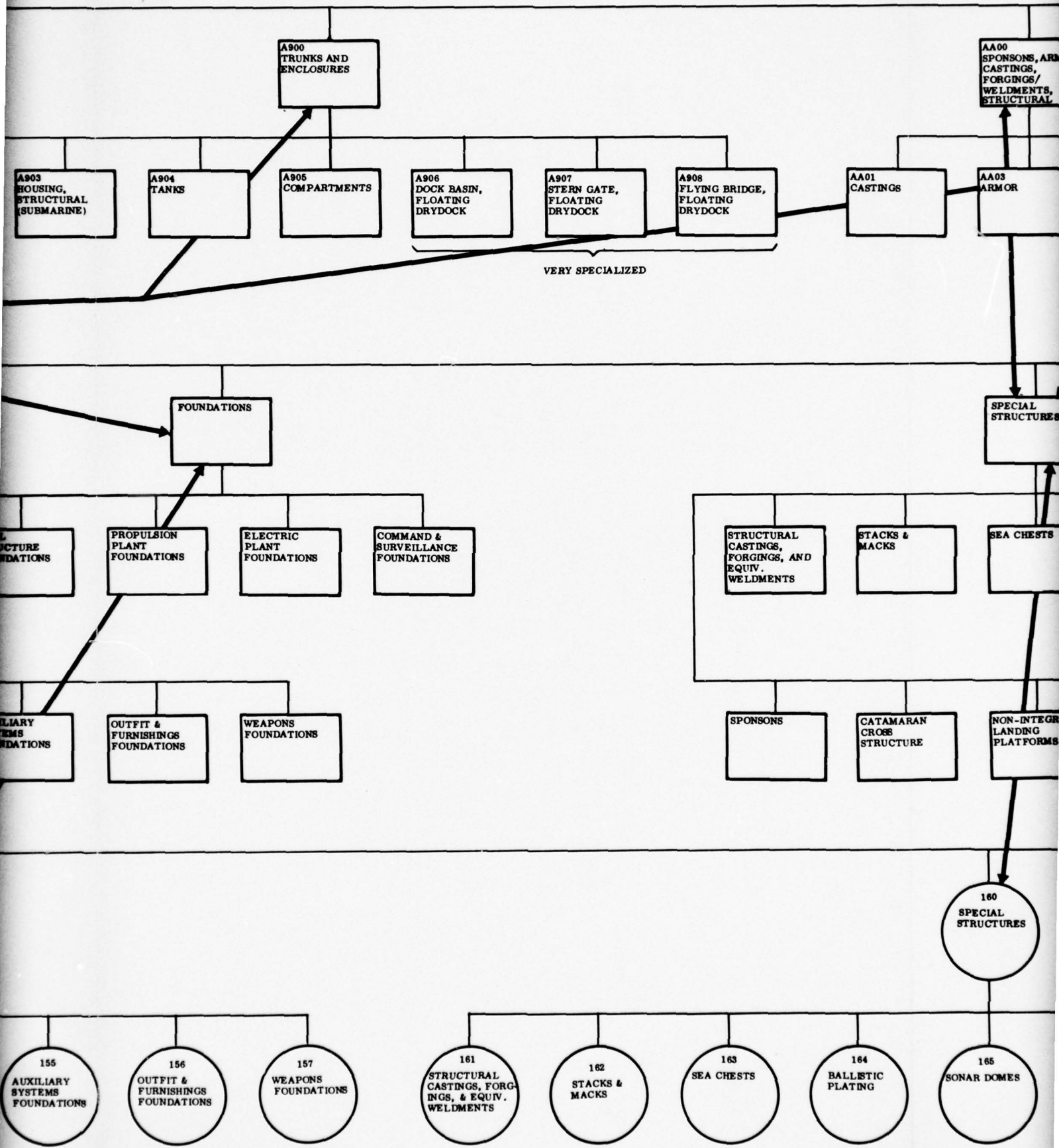
153
ELECTRIC
PLANT
FOUNDATIONS

154
COMMAND &
SURVEILLANCE
FOUNDATIONS

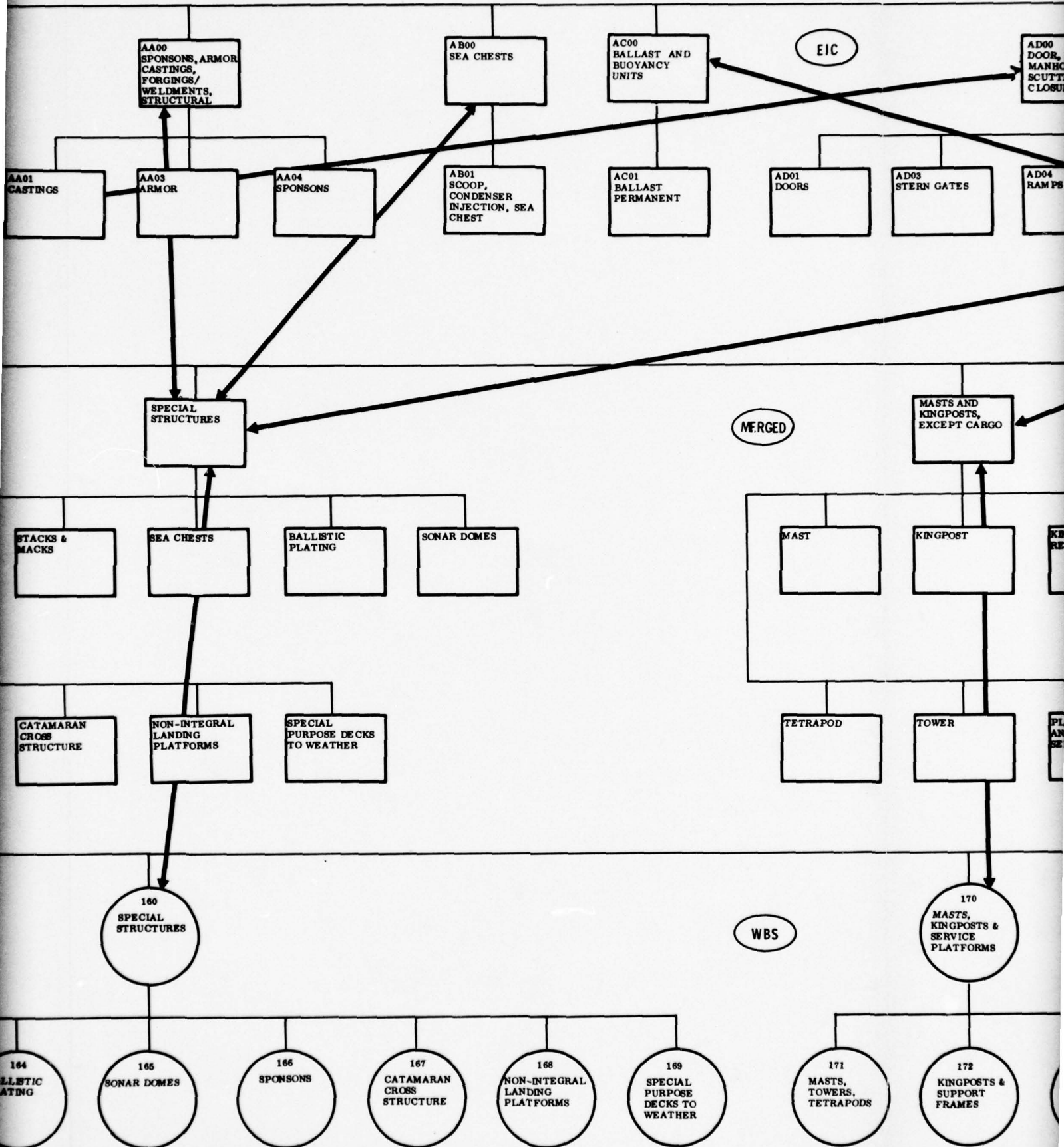
155
AUXILIARY
SYSTEMS
FOUNDATIONS

156
OUTFIT &
FURNISHINGS
FOUNDATIONS

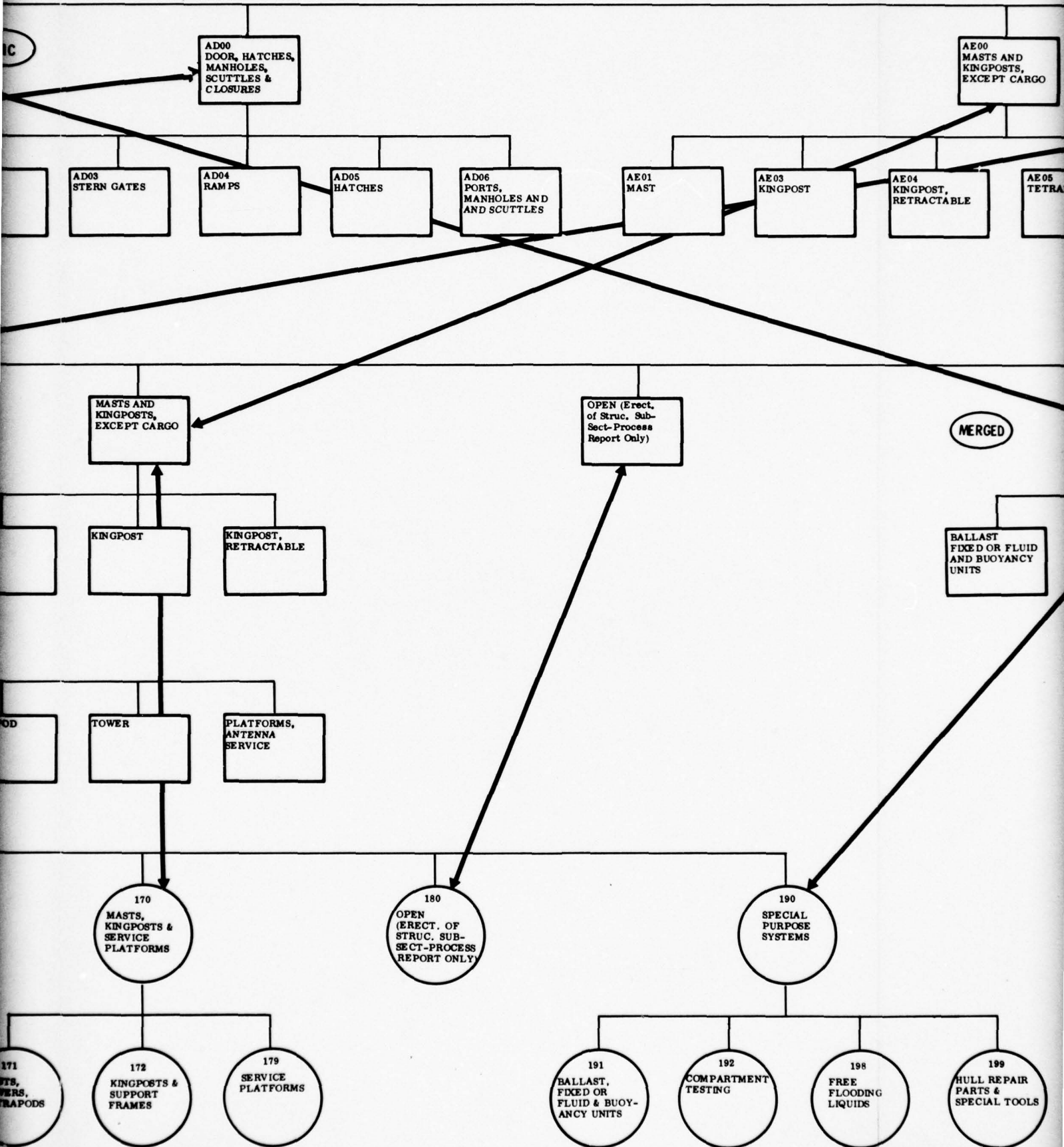
7



8



9 - 1



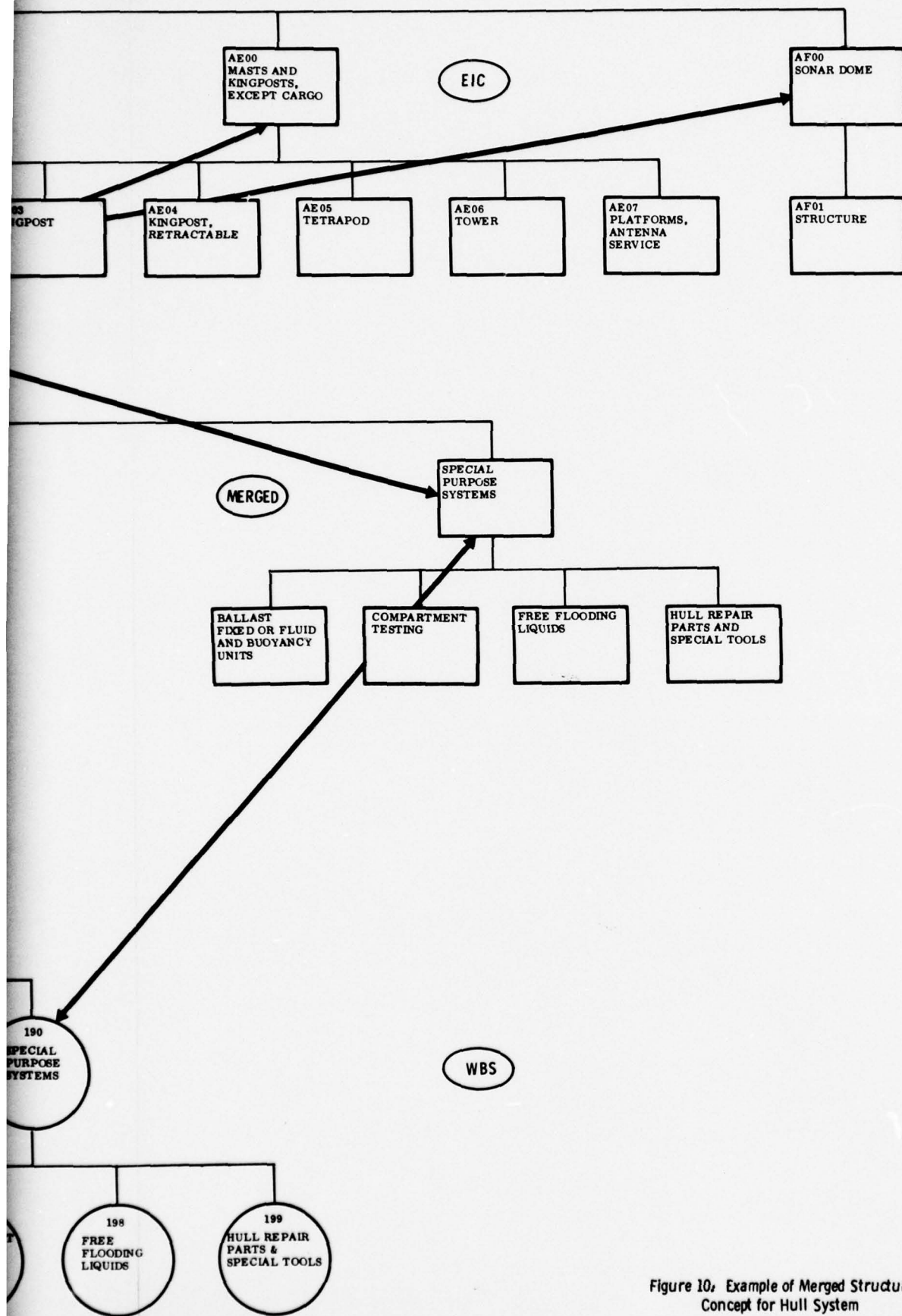


Figure 10: Example of Merged Structure Concept for Hull System

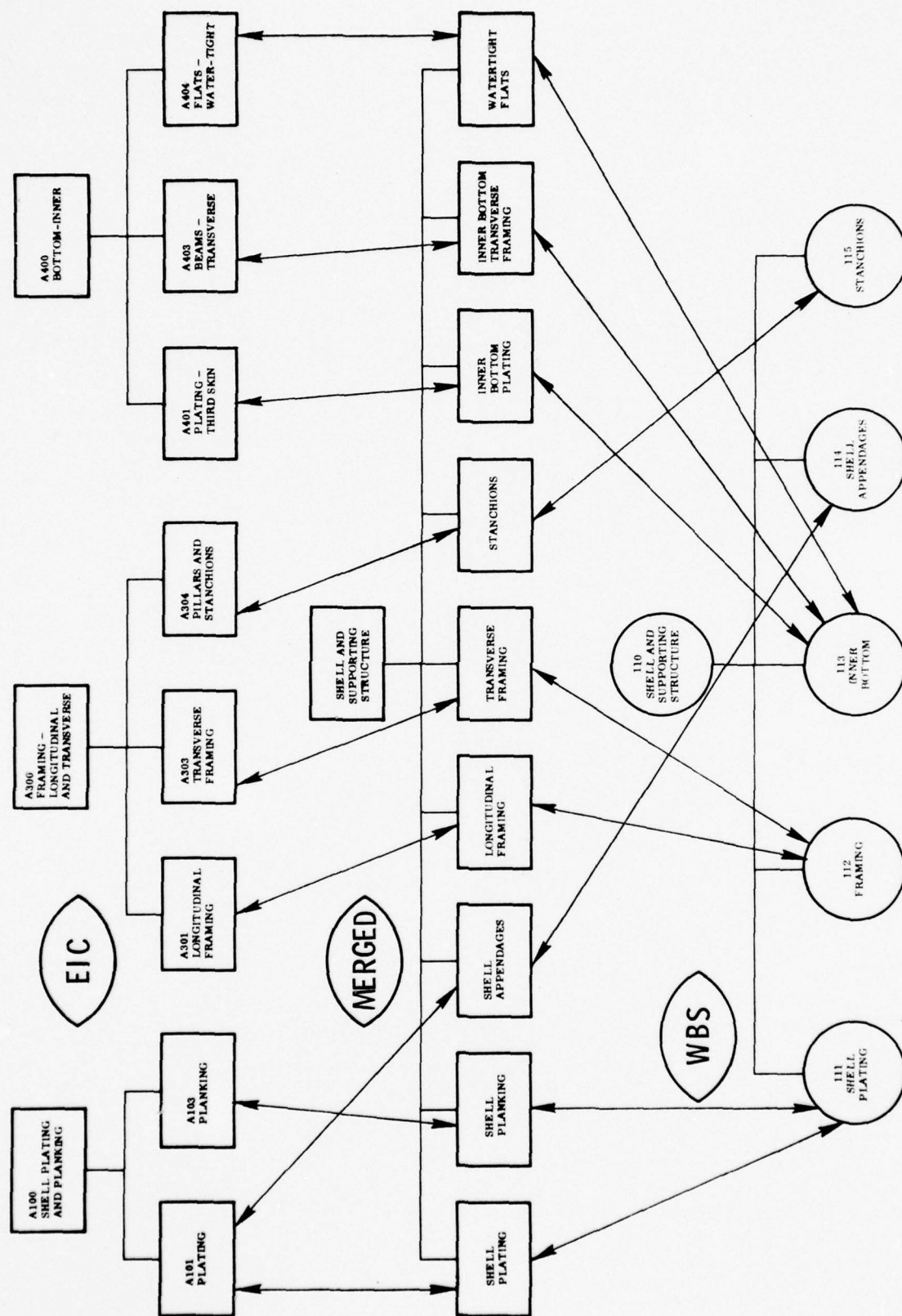


Figure 11. Typical Comparison of EIC Merged with WBS, Showing Third Level Relationship

G000
GUN SYSTEMS

G100
GUN FIRE
CONTROL
SYSTEM MK 68

SEE NOTE 1

EIC

G200
GUN FIRE
CONTROL
SYSTEM MK 70

G11H DIRECTOR, GUN MK 68 MODS 0,1
G11J DIRECTOR, GUN MK 68 MOD 2
G11K DIRECTOR, GUN MK 68 MOD 3
G11L DIRECTOR, GUN MK 68 MOD 5
G11M DIRECTOR, GUN MK 68 MOD 6
G12L SET, RADAR AN/SPG-53
G12M SET, RADAR AN/SPG-53A
G12N SET, RADAR AN/SPG-53B
G142 EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 1
G143 EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 2
G171 COMPUTER, STARSHELL MK 1 MODS
G174 COMPUTER MK 47 MOD 3
G175 COMPUTER MK 47 MOD 4
G176 COMPUTER MK 47 MOD 5
G198 ELEMENT, STABLE MK 16 MOD 0
G199 ELEMENT, STABLE MK 16 MOD 1
G19A ELEMENT, STABLE MK 16 MOD 2
G19C ELEMENT, STABLE MK 16 MOD 6
G1DX CORRECTOR, TRAIN PARALLAX MK 8 MOD 0
G1M8 DRIVE, DIRECTOR CONTROL MK 2 MOD 0
G1M9 DRIVE, DIRECTOR CONTROL MK 2 MOD 1
G1MA DRIVE, DIRECTOR CONTROL MK 2 MOD 2
G1NE TRANSMITTER, RELAY MK 32 MOD 2
G1NF TRANSMITTER, RELAY MK 38 MOD 0
G1R1 TESTER, DYNAMIC MK 2 MOD 0
G1R2 TESTER, DYNAMIC MK 2 MOD 2
G1R3 TESTER, DYNAMIC MK 2 MOD 3
G1RA RECORDER, ERROR MK 7 MODS 0,1
G1T6 CONVERTER MK 20 MOD 2
G1V1 SWITCHBOARD, FIRE CONTROL MK 14 MOD 0
G1V2 SWITCHBOARD, FIRE CONTROL MK 14 MOD 1
G1V3 SWITCHBOARD, FIRE CONTROL MK 14 MOD 2
G1V4 SWITCHBOARD, FIRE CONTROL MK 14 MOD 3
G1V5 SWITCHBOARD, FIRE CONTROL MK 14 MOD 4

G214 DIRECTOR, GUN MK 51 MOD 13
G215 DIRECTOR, GUN MK 51 MOD 14
G22J SET, RADAR AN/SPG-52
G22K SET, RADAR AN/SPG-52A
G279 COMPUTER, FUZE MK 112 MODS 0,1
G27A COMPUTER, FUZE MK 112 MODS 0,1
G2BK SIGHT, GUN MK 31 MODS 1-5
G2DH CORRECTOR, TRAIN PARALLAX MK 5 MODS 0 THRU 11
G2E1 CORRECTOR, GUN ORDER MK 2 MODS 0,1
G2E3 CORRECTOR, GUN ORDER MK 3 MODS 0,2
G2LA AMPLIFIER MK 10 MOD 0
G2LB AMPLIFIER MK 10 MOD 1
G2LY AMPLIFIER MK 121 MODS 1,2
G2U1 DESIGNATOR, TRAIN MK 2 MOD 5

G300
GUN FIRE
CONTROL
SYSTEM MK 86

G3V1 SWITCHBOARD, FIRE CONTROL MK 16 MOD 0
G3V2 SWITCHBOARD, FIRE CONTROL MK 16 MOD 1
G3V3 SWITCHBOARD, FIRE CONTROL MK 16 MOD 2
G3V4 SWITCHBOARD, FIRE CONTROL MK 16 MOD 3
G3V5 SWITCHBOARD, FIRE CONTROL MK 16 MOD 4
G3V6 SWITCHBOARD, FIRE CONTROL MK 16 MOD 5
G3V7 SWITCHBOARD, FIRE CONTROL MK 16 MOD 6
G3V8 SWITCHBOARD, FIRE CONTROL MK 16 MOD 7
G3V9 SWITCHBOARD, FIRE CONTROL MK 16 MOD 8
G3VA SWITCHBOARD, FIRE CONTROL MK 16 MOD 9

ORDNANCE

MERGED

GUN FIRE
CONTROL
SYSTEM MK 68

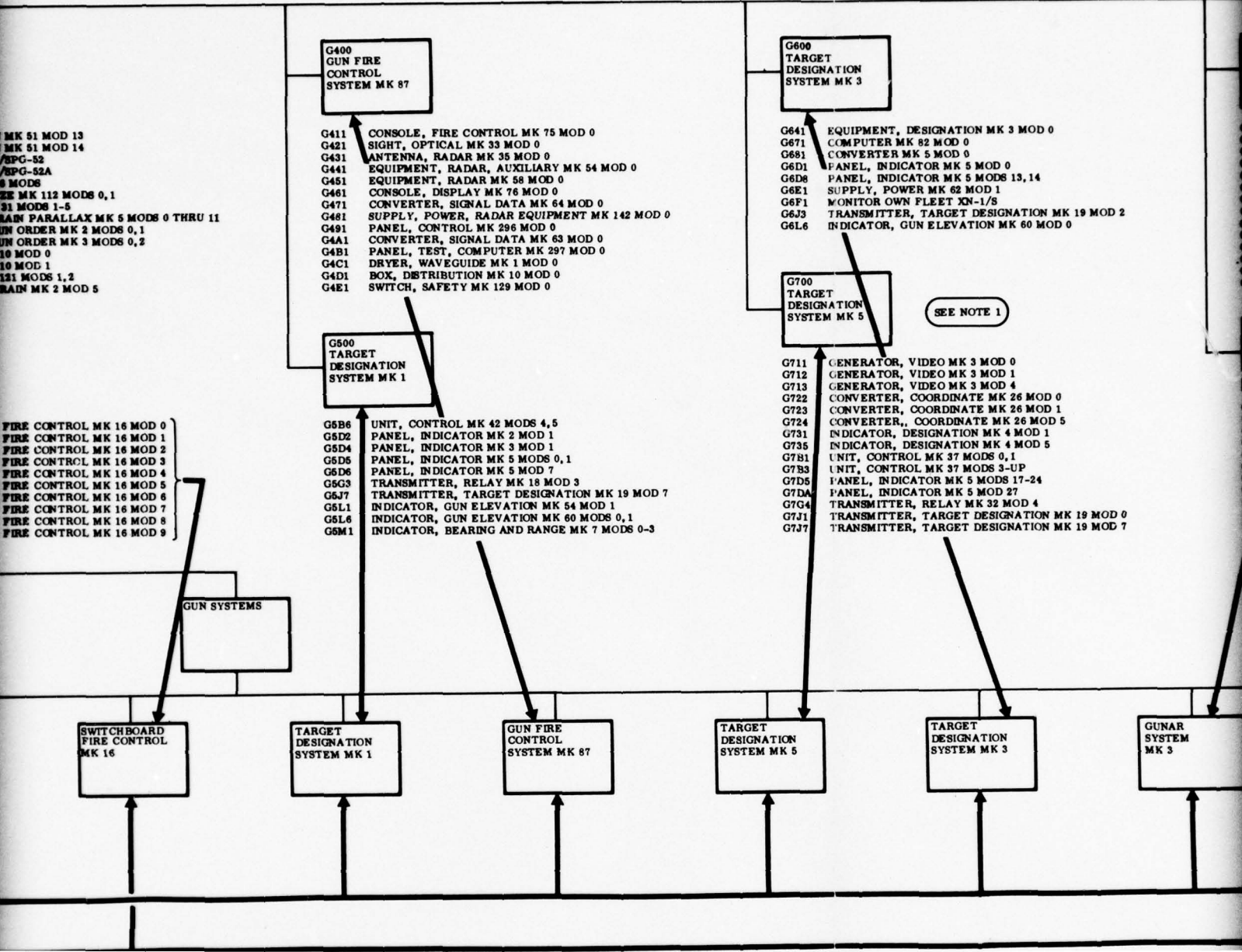
SWITCHBOARD
FIRE CONTROL
MK 14

GUN FIRE
CONTROL
SYSTEM MK 70

SWITCHBOARD
FIRE CONTROL
MK 16

WBS

21



3

G800
TARGET
DESIGNATION
SYSTEM MK 6

SEE NOTE 1

EIC

GA00
GUN TURRETS

SEE NOTE 1

GB00
GUN MOUNTS

- G811 GENERATOR, VIDEO MK 5 MOD 0
- G821 CONVERTER, COORDINATE MK 23 MOD 0
- G822 CONVERTER, COORDINATE MK 26 MOD 1
- G831 INDICATOR, DESIGNATION MK 5 MOD 0
- G832 INDICATOR, DESIGNATION MK 6 MOD 0
- G853 CONSOLE MK 13 MOD 0
- G854 CONSOLE MK 13 MOD 1
- G891 CONVERTER, SCAN MK 25 MOD 0
- G8A1 PLOTTER MK 14 MOD 1
- G8BF UNIT, CONTROL MK 74 MOD 2
- G8D9 PANEL, INDICATOR MK 5 MODS 17,23
- G8DA PANEL, INDICATOR MK 5 MOD 27
- G8E6 SUPPLY, POWER MK 76 MOD 0
- G8J1 TRANSMITTER, TARGET DESIGNATION MK 19 MOD 1

G900
GUNAR
SYSTEM MK 3

- G911 SET, RADAR AN/SPG-48
- G921 MOUNT, RADAR ANTENNA MK 32 MOD 2
- G931 CONSOLE MK 7 MOD 4
- G941 GYRO UNIT MK 1 MOD 1
- G951 SUPPLY, POWER MK 60 MOD 1
- G961 GUN RATE TIMER
- G971 GUNAR UNIT TESTER
- G981 TRANSFORMER, POWER
- G991 AMPLIFIER MK 10 MOD 1
- G9A1 CORRECTOR, TRAIN PARALLAX MK 5 MOD 1
- G9B1 GENERATOR SET, MOTOR

- GA12 8/55 3 GUN TURRET RF
- GA1A SWITCHBOARD, FIRE CONTROL MK 20 MOD 0
- GA1B SWITCHBOARD, FIRE CONTROL MK 20 MOD 1
- GA1C SWITCHBOARD, FIRE CONTROL MK 20 MOD 2
- GA1D SWITCHBOARD, FIRE CONTROL MK 20 MOD 3
- GA1E SWITCHBOARD, FIRE CONTROL MK 20 MOD 4
- GA1F SWITCHBOARD, FIRE CONTROL MK 20 MOD 5
- GA1G SWITCHBOARD, FIRE CONTROL MK 20 MOD 6
- GA32 8/55 3 GUN TURRET SF
- GA3A SWITCHBOARD, FIRE CONTROL MK 23 MOD 0
- GA3B SWITCHBOARD, FIRE CONTROL MK 23 MOD 1
- GA3C SWITCHBOARD, FIRE CONTROL MK 23 MOD 2
- GA3D SWITCHBOARD, FIRE CONTROL MK 23 MOD 3
- GA3E SWITCHBOARD, FIRE CONTROL MK 23 MOD 4
- GA3F SWITCHBOARD, FIRE CONTROL MK 23 MOD 5
- GA3G SWITCHBOARD, FIRE CONTROL MK 23 MOD 6
- GA72 6/47 TRIPLE GUN TURRET SF
- GA7A SWITCHBOARD, FIRE CONTROL MK 19 MOD 0
- GA7B SWITCHBOARD, FIRE CONTROL MK 19 MOD 1
- GA7C SWITCHBOARD, FIRE CONTROL MK 19 MOD 2
- GA7D SWITCHBOARD, FIRE CONTROL MK 19 MOD 3
- GA7E SWITCHBOARD, FIRE CONTROL MK 19 MOD 4
- GA7F SWITCHBOARD, FIRE CONTROL MK 19 MOD 5
- GA7G SWITCHBOARD, FIRE CONTROL MK 19 MOD 6
- GA92 16/50 3 GUN TURRET
- GA9A SWITCHBOARD, FIRE CONTROL MK 21 MOD 0
- GA9B SWITCHBOARD, FIRE CONTROL MK 21 MOD 1
- GA9C SWITCHBOARD, FIRE CONTROL MK 24 MOD 0
- GA9D SWITCHBOARD, FIRE CONTROL MK 21 MOD 2
- GA9E SWITCHBOARD, FIRE CONTROL MK 21 MOD 3
- GA9F SWITCHBOARD, FIRE CONTROL MK 21 MOD 4
- GA9G SWITCHBOARD, FIRE CONTROL MK 21 MOD 5
- GA9H SWITCHBOARD, FIRE CONTROL MK 21 MOD 6
- GA9L SWITCHBOARD, FIRE CONTROL MK 24 MOD 1

- GB13 MOUNT, 5
- GB14 MOUNT, 5
- GB15 MOUNT, 5
- GB17 MOUNT, 5
- GB18 MOUNT, 5
- GB19 MOUNT, 5
- GB1A MOUNT, 5
- GB1B MOUNT, 5
- GB22 MOUNT, 5
- GB31 MOUNT, 5
- GB42 MOUNT, 5
- GB43 MOUNT, 5
- GB44 MOUNT, 5
- GB45 MOUNT, 5
- GB46 MOUNT, 5
- GB4C MOUNT, 5
- GB4F MOUNT, 5
- GB53 MOUNT, 5
- GB55 MOUNT, 5
- GB56 MOUNT, 5
- GB59 MOUNT, 5
- GB5C MOUNT, 5
- GB5D MOUNT, 5
- GB62 MOUNT, 5
- GB63 MOUNT, 5
- GB64 MOUNT, 5
- GB65 MOUNT, 5
- GB6D MOUNT, 5
- GB6E MOUNT, 5
- GB76 MOUNT, 5
- GB77 MOUNT, 5
- GB78 MOUNT, 5
- GB7B MOUNT, 5
- GB7D MOUNT, 5

MERGED

GUNAR
SYSTEM
MK 3

TARGET
DESIGNATION
SYSTEM MK 6

GUN TURRETS

GUN TURRETS
FCS
SWITCHBOARD

GUN MOUNTS

LIGHT WEIGHT
ALUMINUM
MOUNTS

400
COMMAND
AND
SURVEILLANCE

WBS

4

GB00
GUN MOUNTS

SEE NOTE 1

GB13 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 3
GB14 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 4
GB15 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 5
GB17 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 7
GB18 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 8
GB19 MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 9
GB1A MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 1
GB1B MOUNT, 5 IN. 54CAL, SINGLE RF MK 42 MOD 10
GB22 MOUNT, 5 IN. 54CAL, SINGLE SF MK 39 MOD 0
GB31 MOUNT, 5 IN. 38CAL, TWIN DP MK 28 MOD 0
GB42 MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 1
GB43 MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 0
GB44 MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 3
GB45 MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 4
GB46 MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 5
GB4C MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 11
GB4F MOUNT, 5 IN. 38CAL, TWIN DP MK 38 MOD 12
GB53 MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 1
GB55 MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 5
GB56 MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 6
GB59 MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 9
GB5C MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 12
GB5D MOUNT, 5 IN. 38CAL, SINGLE MK 37 MOD 13
GB62 MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 0
GB63 MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 2
GB64 MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 3
GB65 MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 4
GB6D MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 12
GB6E MOUNT, 5 IN. 38CAL, TWIN DP MK 32 MOD 13
GB76 MOUNT, 5 IN. 38CAL, SINGLE MK 30 MOD 6
GB77 MOUNT, 5 IN. 38CAL, SINGLE MK 30 MOD 12
GB78 MOUNT, 5 IN. 38CAL, SINGLE MK 30 MOD 13
GB7B MOUNT, 5 IN. 38CAL, SINGLE MK 30 MOD 16
GB7D MOUNT, 5 IN. 38CAL, SINGLE MK 30 MOD 18

GC00
LIGHT WEIGHT
(ALUMINUM)
MOUNTS

GC11 MOUNT, GUN 5 INCH 54 CAL. RF MK 45 MOD 0

GD00
AA MACHINE
GUNS

SEE NOTE 1

GDC6 MOUNT, 40MM QUADR MK 2 MOD 5
GDCF MOUNT, 40MM QUADR MK 2 MOD 14
GDCK MOUNT, 40MM QUADR MK 2 MOD 18
GDCS MOUNT, 40MM QUADR MK 2 MOD 35
GDCW MOUNT, 40MM QUADR MK 2 MOD 39
GDE3 MOUNT, 40MM TWIN MK 1 MOD 2
GDE7 MOUNT, 40MM TWIN MK 1 MOD 6
GDL2 MOUNT, 40MM SINGLE MK 3 SK108069
GDM2 MOUNT, 40MM SINGLE MK 3 MOD 0 SK108069
GDM5 MOUNT, 40MM SINGLE MK 3 MOD 4
GDN1 MOUNT, 20MM SINGLE MK 4 MOD 0
GDN2 MOUNT, 20MM SINGLE MK 4 MOD 1
GDN3 MOUNT, 20MM SINGLE MK 4 MOD 2
GDQ6 MOUNT, 20MM TWIN MK 24 MOD 5
GDQ7 MOUNT, 20MM TWIN MK 24 MOD 6
GDR2 MOUNT, 20MM SINGLE MK 10 MOD 1
GDR5 MOUNT, 20MM SINGLE MK 10 MOD 4
GDR6 MOUNT, 20MM SINGLE MK 10 MOD 0
GDRJ MOUNT, 20MM SINGLE MK 10 MOD 17
GDRM MOUNT, 20MM SINGLE MK 10 MOD 16
GDRQ MOUNT, 20MM SINGLE MK 10 MOD 23
GDRX MOUNT, 20MM SINGLE MK 10 MOD 29
GDRZ MOUNT, 20MM SINGLE MK 10 MOD 32

GE00
GUN ROCKET
LAUNCHERS

GEB1 LAUNCHER, ROCKET (POWER)
GEC3 LAUNCHER, ROCKET (POWER)
GEDI SYSTEM, LAUNCHING, ROCKET

GF00
SALUTING
BATTERIES

GFB2 40MM SALUTING BATTERY MK
GFB3 40MM SALUTING BATTERY MK

LIGHT WEIGHT
ALUMINUM
MOUNTS

AA MACHINE
GUNS

GUN ROCKET
LAUNCHERS

SALUTING
BATTERIES

GUN FIRE
CONTROL
SYSTEM-MAIN
BATTERY MK 34

GUN FI
CONTIN
SYSTEM

5

GE00
GUN ROCKET
LAUNCHERS

GEB1 LAUNCHER, ROCKET (POWER) MK 102 MOD 0
GEC3 LAUNCHER, ROCKET (POWER) MK 105 MOD 3
GED1 SYSTEM, LAUNCHING, ROCKET CHAFROC MK 28 MOD 0

GF00
SALUTING
BATTERIES

GFB2 40MM SALUTING BATTERY MK 11 MOD 0
GFB3 40MM SALUTING BATTERY MK 11 MOD 1

GK00
GUN FIRE
CONTROL
SYSTEM (MAIN
BATTERY) MK 34

GK11 DIRECTOR, GUN MK 34 MOD 8
GK12 DIRECTOR, GUN MK 34 MOD 10
GK13 DIRECTOR, GUN MK 34 MOD 16
GK14 DIRECTOR, GUN MK 34 MOD 17
GK15 DIRECTOR, GUN MK 34 MOD 18
GK21 EQUIPMENT, RADAR MK 13 MOD 0
GK63 RANGEKEEPER MK 8 MOD 53
GK66 RANGEKEEPER MK 8 MOD 56
GK69 RANGEKEEPER MK 8 MOD 59
GK79 COMPUTER MK 48 MOD 1
GK7E COMPUTER MK 3 MOD 6
GK9E DIRECTOR, GUN (STABLE VERTICAL) MK 41 MOD 0
GKV1 SWITCHBOARD, FIRE CONTROL MK 18 MOD 0
GKV2 SWITCHBOARD, FIRE CONTROL MK 18 MOD 1
GKV3 SWITCHBOARD, FIRE CONTROL MK 18 MOD 2
GKV4 SWITCHBOARD, FIRE CONTROL MK 18 MOD 3
GKV5 SWITCHBOARD, FIRE CONTROL MK 18 MOD 4
GKV6 SWITCHBOARD, FIRE CONTROL MK 18 MOD 5
GKV7 SWITCHBOARD, FIRE CONTROL MK 18 MOD 6
GKV8 SWITCHBOARD, FIRE CONTROL MK 18 MOD 7
GKV9 SWITCHBOARD, FIRE CONTROL MK 18 MOD 8
GKVA SWITCHBOARD, FIRE CONTROL MK 18 MOD 9

GL00
GUN FIRE
CONTROL
SYSTEM MK 37

SEE NOTE 1

GL11 DIRECTOR, GUN MK 37 MOD 7 (ARMA)
GL12 DIRECTOR, GUN MK 37 MOD 8 (ARMA)
GL13 DIRECTOR, GUN MK 37 MOD 9 (ARMA)
GL14 DIRECTOR, GUN MK 37 MOD 10 (ARMA)
GL1W DIRECTOR, GUN MK 37 MOD 17 (GE)
GL1X DIRECTOR, GUN MK 37 MOD 109 (GE)
GL1Y DIRECTOR, GUN MK 37 MOD 110 (GE)
GL1Z DIRECTOR, GUN MK 37 MOD 111 (GE)
GL22 EQUIPMENT, RADAR MK 25 MOD 2
GL23 EQUIPMENT, RADAR MK 25 MOD 3
GL41 EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 0
GL4A INITIAL VELOCITY YARD STICK UNIT XN-1
GL71 COMPUTER, STARSHIELD MK 1 MODS
GL74 COMPUTER MK 1A MOD 8
GL75 COMPUTER MK 1A MOD 12
GL76 COMPUTER MK 1A MOD 13
GL91 ELEMENT, STABLE MK 6 MODS
GLL6 AMPLIFIER MK 61 MODS 0,1
GLL7 AMPLIFIER MK 61 MOD 2
GLNG TRANSMITTER, RELAY MK 57 MOD 0
GLV1 SWITCHBOARD, FIRE CONTROL MK 11 MOD 0
GLV2 SWITCHBOARD, FIRE CONTROL MK 11 MOD 1
GLV3 SWITCHBOARD, FIRE CONTROL MK 11 MOD 2
GLV4 SWITCHBOARD, FIRE CONTROL MK 11 MOD 3
GLV5 SWITCHBOARD, FIRE CONTROL MK 11 MOD 4
GLV6 SWITCHBOARD, FIRE CONTROL MK 11 MOD 5
GLV7 SWITCHBOARD, FIRE CONTROL MK 11 MOD 6
GLV8 SWITCHBOARD, FIRE CONTROL MK 11 MOD 7
GLV9 SWITCHBOARD, FIRE CONTROL MK 11 MOD 8
GLVA SWITCHBOARD, FIRE CONTROL MK 11 MOD 9
GLVB SWITCHBOARD, FIRE CONTROL MK 11 MOD 10
GLVC SWITCHBOARD, FIRE CONTROL MK 11 MOD 11

GUN FIRE
CONTROL
SYSTEM-MAIN
BATTERY MK 34

GUN FIRE
CONTROL
SYSTEM MK 37

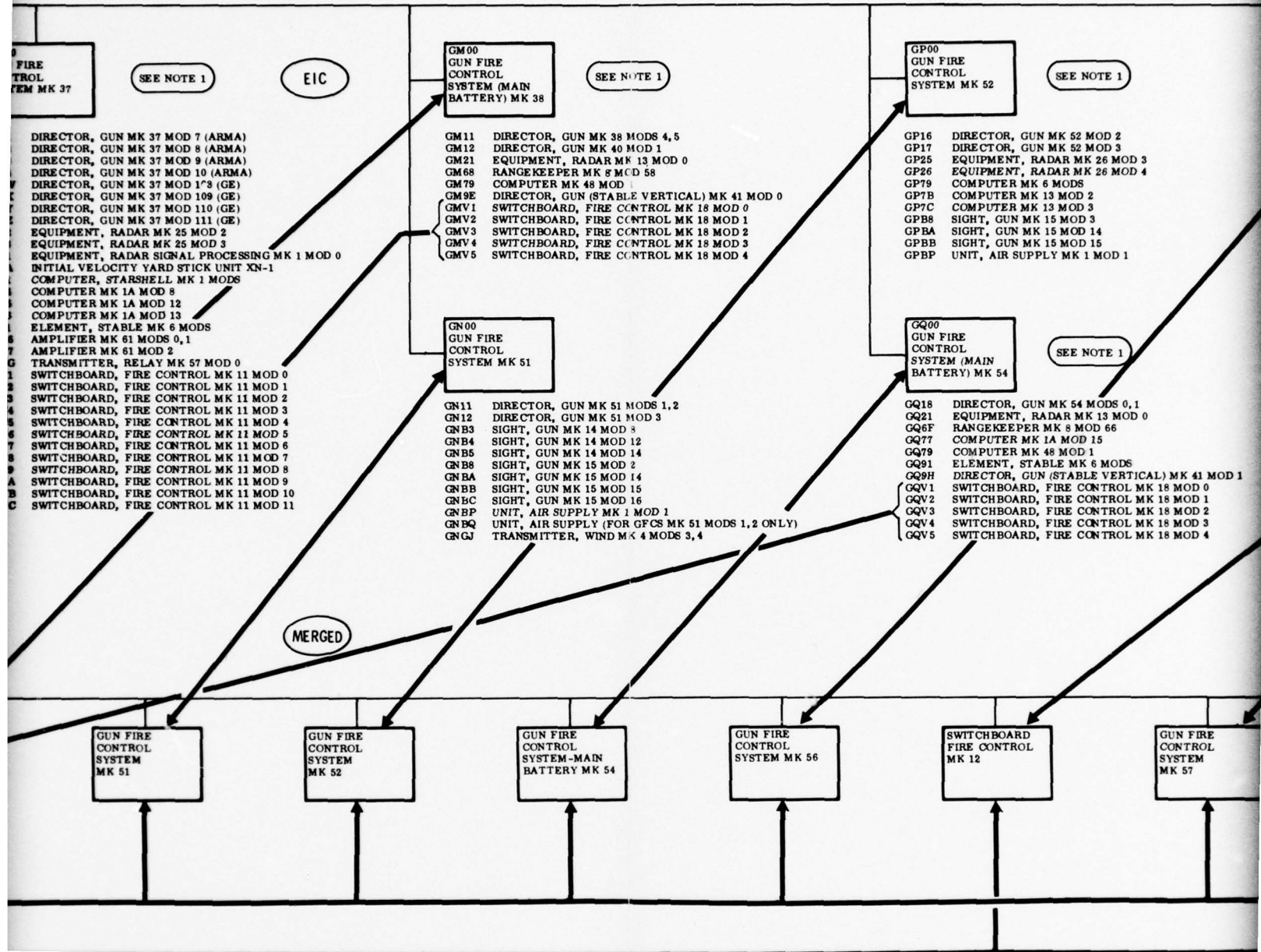
SWITCHBOARD
FIRE CONTROL
MK 11

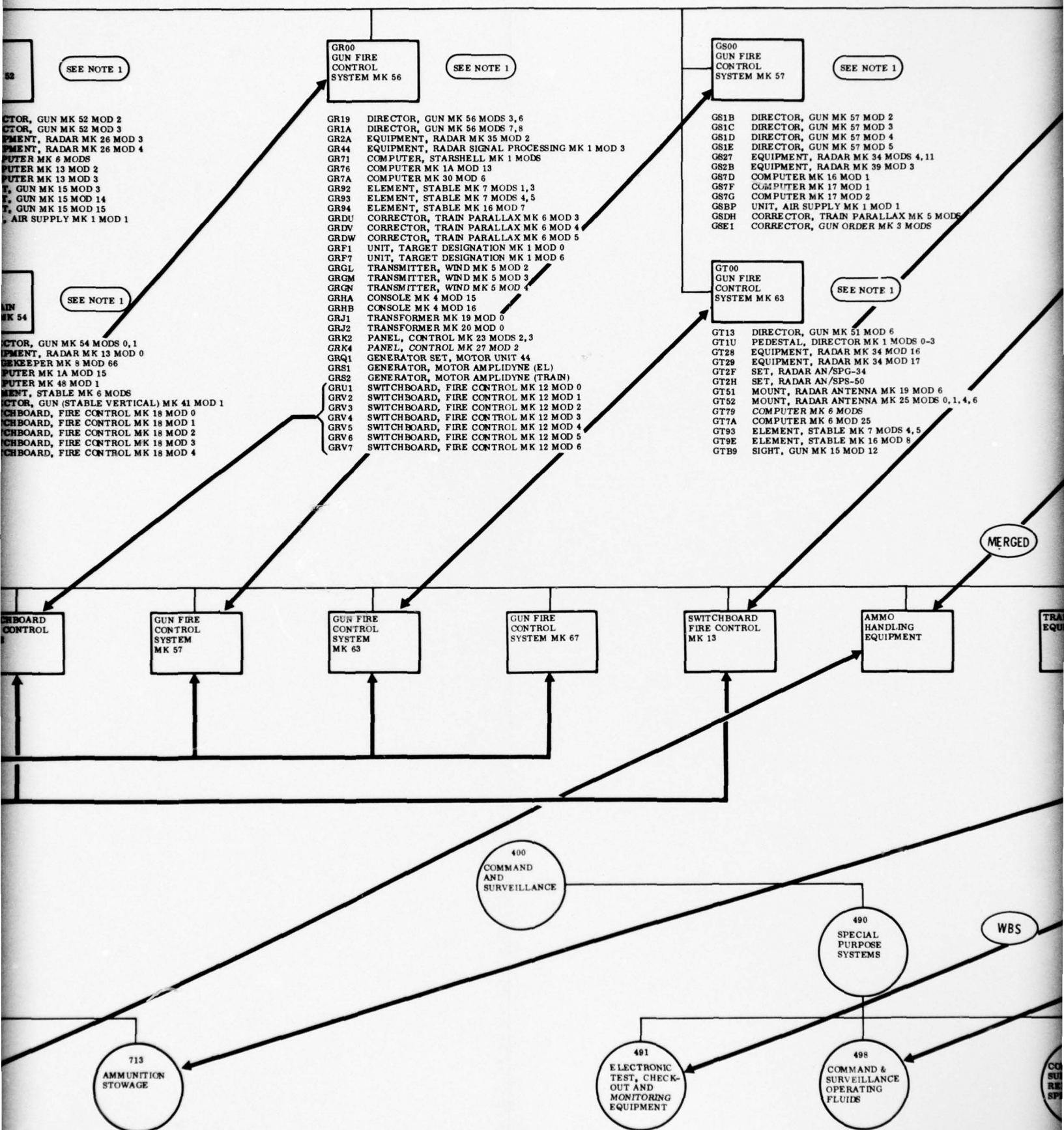
GUN FIRE
CONTROL
SYSTEM-MAIN
BATTERY MK 38

SWITCHBOARD
FIRE CONTROL
MK 18

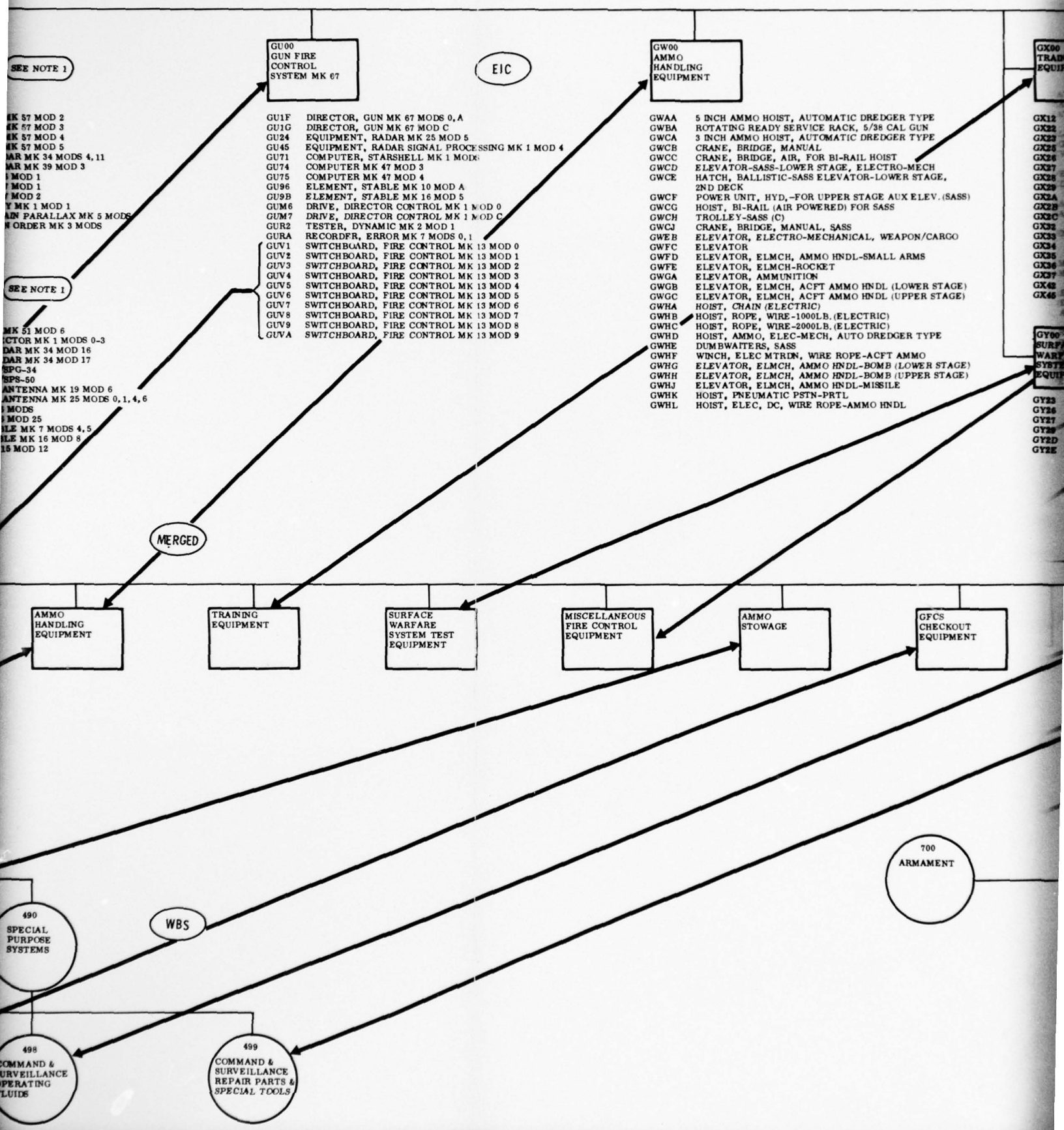
GUN FIRE
CONTROL
SYSTEM
MK 51

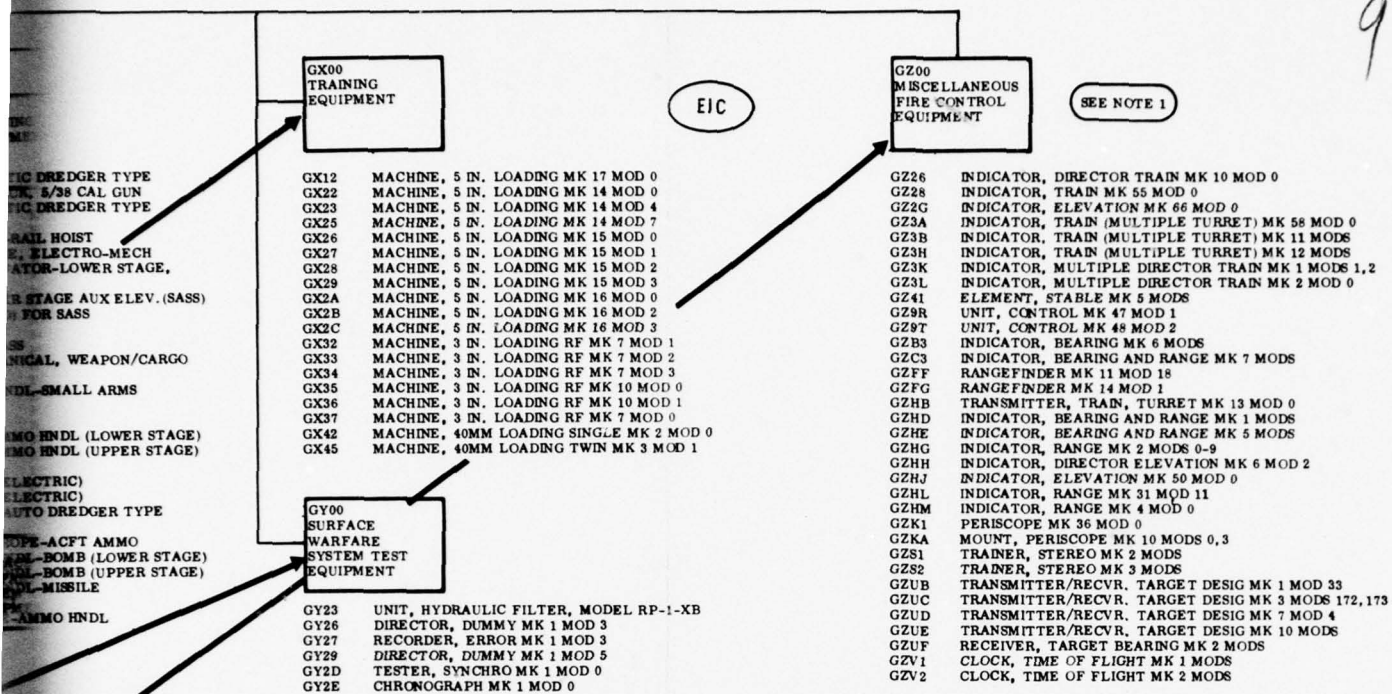
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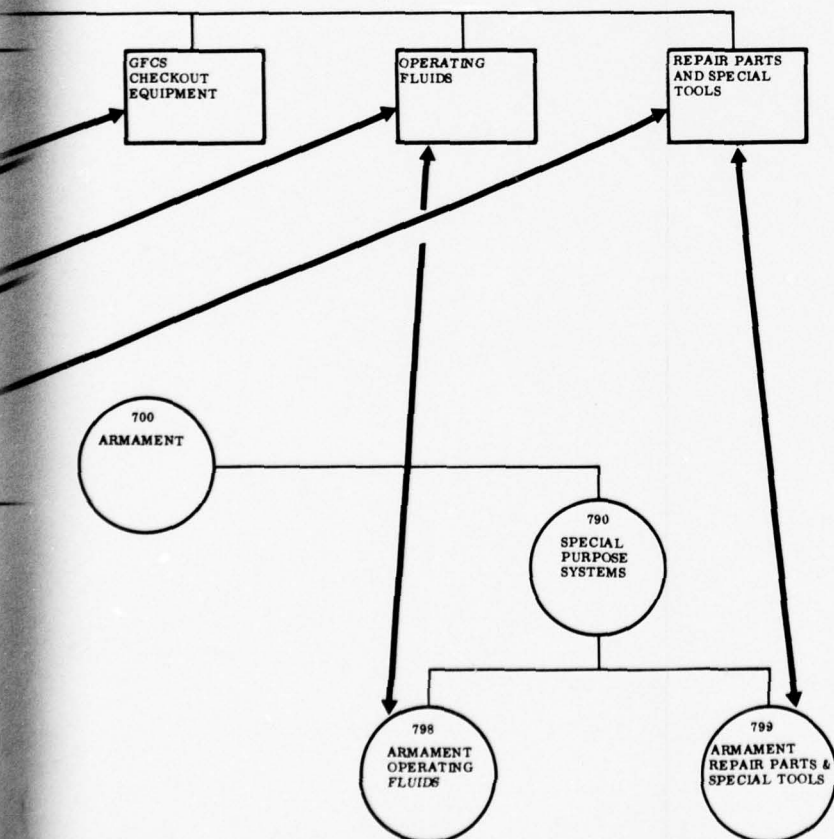


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MERGED



NOTE 1: NOT ALL EQUIPMENTS CODED AS PART OF THIS SUBSYSTEM ARE LISTED HERE. THE FULL EQUIPMENT LEVEL CODING IS SHOWN IN THE EQUIPMENT IDENTIFICATION CODE MASTER INDEX MSO 4790. E2579.

Figure 12. Example of Merged Structure Concept for Ordnance Type System

PRECEDING PAGE NOT FILMED
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N000
COUNTER-
MEASURES SYS-
TEMS
ELECTRONIC/
NON-ELECTRONIC

N100
STREAMING
SYSTEMS-MINE
AND TORPEDO
COUNTER-
MEASURES

N101 MINE SWEEPING GEAR
N103 MINEHUNTING GEAR
N104 TORPEDO COUNTERMEASURES GEAR
N105 STREAMING AND HANDLING MACHINERY

N300
MINESWEEPING
SYSTEMS,
DRONE

EIC

N301 BOAT, MSD (MINESWEEPER, DRONE) MOD 3

COMMAND
AND
SURVEILLANCE

TORPEDO
DECOYS

400
COMMAND &
SURVEILLANCE

401
GENERAL
ARRANGEMENT-
COMMAND &
SURVEILLANCE

402
GENERAL
SPACE OUT-
FITTING
REQUIREMENTS

403
ELECTRONIC
SYSTEM
SAFETY

2, 1

EIC

N400
DEGAUSSING
SYSTEMS

N500
GENERATING
PLANTS, AC,
ACOUSTIC
MINESWEEPING

N401 DEGAUSSING SYSTEM WITH DGA SERIES CONTROL EQPT.
N403 DEGAUSSING SYSTEM WITH EMS-4 CONTROL EQUIPMENT
N404 DEGAUSSING SYSTEM W/EMS-5 CONTROL EQUIPMENT
N405 DEGAUSSING SYSTEM W/EMS-9 CONTROL EQUIPMENT
N406 DEGAUSSING SYSTEM W/EMS-10 CONTROL EQUIPMENT
N407 DEGAUSSING SYSTEM W/FM-1 CONTROL EQUIPMENT
N408 DEGAUSSING SYSTEM W/FM-2 CONTROL EQUIPMENT
N409 DEGAUSSING SYSTEM W/FM-3, FM-3A CONTROL EQPT.
N40A DEGAUSSING SYSTEM W/GEM-2, GEM-2A CONTROL EQPT.
N40B DEGAUSSING SYSTEM W/GEM-3 CONTROL EQUIPMENT
N40C DEGAUSSING SYSTEM W/GM-1, GM-4 CONTROL EQPT.
N40D DEGAUSSING SYSTEM, W/GM-1A CONTROL EQUIPMENT
N40E DEGAUSSING SYSTEM WITH GM 5 CONTROL EQUIPMENT
N40F DEGAUSSING SYSTEM W/FM SERIES CONTROL EQUIPMENT
N40G DEGAUSSING SYSTEM W/SM-4, SM-4A CONTROL EQPT.
N40H DEGAUSSING SYSTEM W/SM-5 CONTROL EQUIPMENT
N40J DEGAUSSING SYSTEM W/SM-7 CONTROL EQUIPMENT
N40K DEGAUSSING SYSTEM W/SM-8 CONTROL EQUIPMENT
N40L DEGAUSSING SYSTEM W/SM-9, SM-9A CONTROL EQPT.
N40M DEGAUSSING SYSTEM W/SM-10 CONTROL EQUIPMENT
N40N DEGAUSSING SYSTEM WITH SM-11 CONTROL EQUIPMENT
N40P DEGAUSSING SYSTEM W/SM-12 CONTROL EQUIPMENT
N40Q DEGAUSSING SYSTEM W/SM-14 CONTROL EQUIPMENT
N40R DEGAUSSING SYSTEM W/SSM (VICKERS) CONTROL EQPT.
N40S DEGAUSSING SYSTEM W/SSM-1 CONTROL EQUIPMENT
N40T DEGAUSSING SYSTEM W/SSM-2 CONTROL EQUIPMENT
N40U DEGAUSSING SYSTEM, W/SSM-3 CONTROL EQUIPMENT
N40V DEGAUSSING SYSTEM W/ALL COILS MANUALLY CONTROLLED

N501 GENERATOR SET, AC, DIESEL ENGINE DRIVEN
N503 GENERATOR SET, AC, GAS TURBINE DRIVEN
N504 GENERATOR SET, AC, STEAM TURBINE DRIVEN

(MINESWEEPER, DRONE) MOD 3

STREAMING
SYSTEMS,
MINESWEEPING

MERGED

MINESWEEPING
SYSTEMS,
DRONE

DEGAUSSING
SYSTEMS

WBS

?

402
GENERAL
SPACE OUT-
FITTING
REQUIREMENTS

403
ELECTRONIC
SYSTEM
SAFETY

404
RADIO
FREQUENCY
TRANSMISSION
LINES

405
ANTENNAS
REQUIREMENTS

406
GROUNDING
AND BONDING

407
RADIO
FREQUENCY
INTERFERENCE
(RFI)

408
GENERAL TEST
REQUIREMENTS

409
SECURITY
REQUIREMENTS

3 1

N600
GENERATING
PLANTS, DC,
MAGNETIC
MINESWEEPING

N700
PRAIRIE -
MASKER
SYSTEM

N601 GENERATOR SET, DC, GAS TURBINE DRIVEN
N603 GENERATOR SET, DIESEL ENGINE DRIVEN

N701 COMPRESSOR UNIT, AIR, PRAIRIE-MASKER,
SUBMARINE USE
N703 PUMP UNIT, CTFGL, SEAWATER
N704 AIR SUPPLY, STM TDVN PRAIRIE-MASKER, SURFACE
VESSELS
N705 AIR SUPPLY UNIT, GAS TURB DRIVE, PRAIRIE-MASKER,
SUR VSL

N801
N802
N803
N804
N805
N806
N807
N808
N809
N80A
N80B
N80C
N80D
N80E
N80F
N80G
N80H
N80J
N80K
N80L
N80M
N80N
N80P
N80Q
N80R
N80S
N80T
N80U
N80V
N80W
N80X
N80Y
N80Z
N810
N811
N813
N914

DIESEL ENGINE DRIVEN
GAS TURBINE DRIVEN
STEAM TURBINE DRIVEN

COUNTER-
MEASURES

GENERATING
PLANT, AC,
ACOUSTIC
MINESWEEPING

GENERATING
PLANTS, DC,
MAGNETIC
MINESWEEPING

DEGAUSSING
SYSTEMS

PRAIRIE
MASKER
SYSTEM

409
SECURITY
REQUIREMENTS

T
D

4

IE-MASKER,
E-MASKER, SURFACE
IVE, PRAIRIE-MASKER,

N801 AN/APR-1, RECEIVING EQPT, RADIO
N803 AN/BLR-1, RECEIVING SET, COUNTERMEASURES
N804 AN/BLR-2, RECEIVING SET, COUNTERMEASURES
N805 AN/BLR-10A, RECEIVING SET, COUNTERMEASURES
N806 AN/BLR-10A, RECEIVING SET, COUNTERMEASURES
N807 AN/FLR-1, RECEIVING SET, COUNTERMEASURES
N808 CZC-SLR-12B, RECEIVER
N809 AN/FLR-2, RECEIVING SET, COUNTERMEASURES, VHF
N80A AN/SLA-1, ANALYZER GROUP, PULSE
N80B AN/SLA-1A, ANALYZER GROUP, PULSE
N80C AN/SLA-1X, ANALYZER GROUP, PULSE
N80D AN/SLA-2, ANALYZER GROUP, PULSE
N80E AN/SLA-2A, ANALYZER GROUP, PULSE
N80F AN/SLA-9, ANTENNA CONTROL GROUP
N80G AN/SLA-9 (XN-1), ANTENNA CONTROL GROUP
N80H AN/SLA-11, ANTENNA GROUP
N80J AN/SLA-10, BLANKER, VIDEO MIXER GROUP
N80K AN/SLA-10A, BLANKER-VIDEO MIXER GROUP
N80L AN/SLA-10(V), BLANKER-VIDEO MIXER GROUP
N80M AN/SLQ-19, RECEIVING SET, COUNTERMEASURES
N80N AN/SLA-11 (XN-1), ANTENNA GROUP
N80P AN/SLA-12, ANTENNA GROUP
N80Q AN/SLA-13, ANTENNA GROUP
N80R AN/SLA-13A, ANTENNA GROUP
N80S AN/SLR-2, RECEIVING SET, COUNTERMEASURES, ECM
N80T AN/SLR-8 (XN-2), RECEIVING SET, COUNTERMEASURES
N80U AN/SLR-9, RECEIVING SET, COUNTERMEASURES
N80V AN/SLR-10, RECEIVING SET, COUNTERMEASURES
N80W AN/SLR-11, RECEIVING SET, COUNTERMEASURES
N80X AN/SLR-12, RECEIVING SET, COUNTERMEASURES, ECM
N80Y AN/SLR-12 (XN-1), RECEIVING SET, COUNTERMEASURES, ECM
N80Z AN/SLR-12A, RECEIVING SET, COUNTERMEASURES, ECM
N810 AN/SLR-13, RECEIVING SET, COUNTERMEASURES, ECM
N811 AN/SPA-1, ANALYZER EQPT, PULSE
N813 AN/SPR-2, RADAR SET
N914 AN/SSQ-54, EMITTER STATUS INDICATOR SET

N815 AN/ULA-2, ANALYZER GROUP, PULSE
N816 AN/ULA-3, AMPLIFIER GROUP, RF
N817 AN/ULR-5, RECEIVING SET, COUNTERMEASURES
N818 AN/ULR-11 (XN-1), RECEIVING SET, COUNTERMEASURES
N819 AN/WLA-2, AMPLIFIER GROUP, RF
N81A AN/WLA-2 (XN-1), AMPLIFIER GROUP, RF
N81B AN/WLA-2A, AMPLIFIER GROUP, RF
N81C AN/WLA-3, AMPLIFIER GROUP, RF
N81D AN/WLA-3 (XN-1), AMPLIFIER GROUP, RF
N81E AN/WLA-3 (XN-2), AMPLIFIER GROUP, RF
N81G AN/WLA-3A, AMPLIFIER GROUP, ECM
N81H AN/WLR-1, RECEIVING SET, COUNTERMEASURES
N81J AN/WLR-1 (XN-1), SYSTEM, ECM INTERCEPT
N81K AN/WLR-1 (XN-2), SYSTEM, ECM INTERCEPT
N81L AN/WLR-2, RECEIVING SET, SONAR (MINES)
N81M AN/WLR-1A, RECEIVING SET, COUNTERMEASURES
N81N AN/WLR-1B, RECEIVING SET, COUNTERMEASURES
N81P AN/WLR-1C, RECEIVING SET, COUNTERMEASURES
N81Q AN/WLR-1D, RECEIVING SET, COUNTERMEASURES
N81R AN/WLR-1E, RECEIVING SET, COUNTERMEASURES
N81S AN/WLR-1F, RECEIVING SET, COUNTERMEASURES
N81T AN/WLR-3, RECEIVING SET, COUNTERMEASURES, ECM
N81U AN/WLR-3A, RECEIVING SET, COUNTERMEASURES, ECM
N81V AN/WLR-5(V), RECEIVING SET, COUNTERMEASURES
N81W AN/WLR-6(V), RECEIVING SET, COUNTERMEASURES
N81X AN/WLR-6 (XN-1), RECEIVING SET, COUNTERMEASURES
N81Y AN/WLR-6A(V), RECEIVING SET, COUNTERMEASURES
N81Z AS-371/S, ANTENNA
N830 AS-371A/S, ANTENNA ASSEMBLY
N831 AS-371B/S, ANTENNA ASSEMBLY
N833 AS-393B/BLR, ANTENNA
N834 AS-570/SLR, ANTENNA, DF
N835 AS-571/SLR, ANTENNA ARRAY
N836 AS-616/SLR, ANTENNA, DF
N837 AS-626/BLR, ANTENNA ASSEMBLY
N838 AS-899A/SLR, ANTENNA, DF

N839 AS-899B/BLR
N83A AS-944/BLR
N83B AS-976/BLR
N83C AS-1071A/W
N83D AS-1096/BLR
N83E AS-1096 (XN)
N83F AS-1096A/W
N83G AS-1173 (XN)
N83H AS-1174/BLR
N83J AS-1175 (XN)
N83K AS-1584/BLR
N83L AS-1610/BLR
N83M AS-1640/B
N83N AS-1750/BLR
N83P AT-365/BLR
N83Q AT-365A/W
N83R AT-693/BLR
N83S AT-822/BLR
N83T AT-822 (1/2)
N83U AT-822C/BLR
N83V AT-822D/BLR
N83W AT-840/APR
N83X AT-863/ULR
N83Y C-1213/SLR
N83Z C-1608/SLR
N840 C-1609/SLR
N841 C-3118/ULR
N843 C-3118A/W
N844 C-3118B/W
N845 CBGF-8900
N846 OA-532/BLR
N847 OA-1903/BLR
N848 R-639/FLR
N849 R-639A/FLR
N84A AM-4255/W
N84B AM-825/SLR

EIC

N800
INTERCEPT AND
ANALYSIS
SYSTEM,
SURFACE

PRAIRIE-
MASKER
SYSTEM

OTHER
DECOYS

MERGED

INTERCEPT &
ANALYSIS
SYSTEMS,
SURFACE

WBS

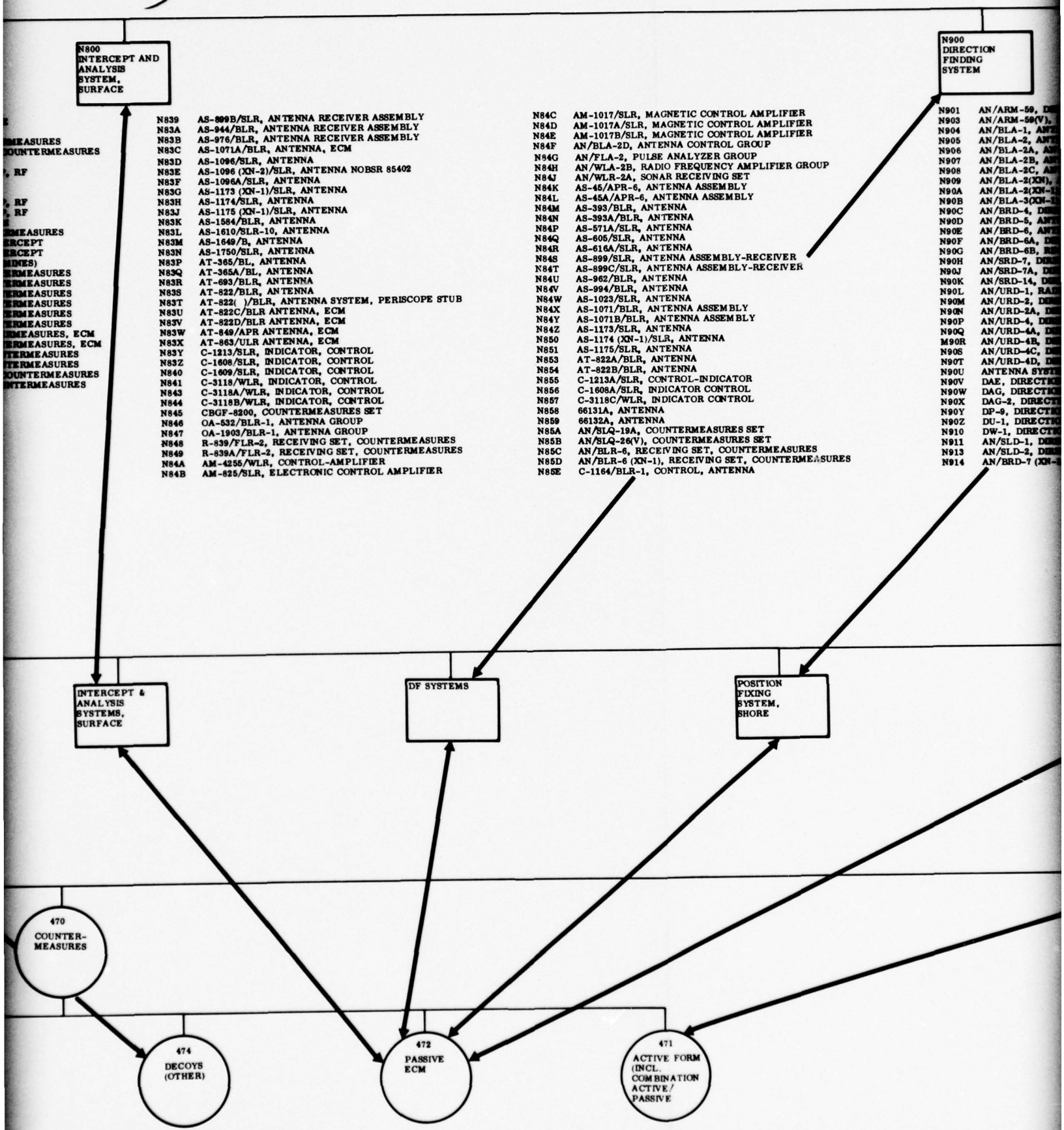
470
COUNTER-
MEASURES

473
TORPEDO
DECOYS

476
MINE
SWEEPING

475
DEGAUSSING

474
DECOYS
(OTHER)



6

**N900
DIRECTION
FINDING
SYSTEM**

- N901 AN/ARM-59, DIRECTION FINDER SET
- N903 AN/ARM-59(V), DIRECTION FINDER SET
- N904 AN/BLA-1, ANTENNA CONTROL GROUP
- N905 AN/BLA-2, ANTENNA CONTROL GROUP
- N906 AN/BLA-2A, ANTENNA CONTROL GROUP
- N907 AN/BLA-2B, ANTENNA CONTROL GROUP
- N908 AN/BLA-2C, ANTENNA CONTROL GROUP
- N909 AN/BLA-2(XN), ANTENNA CONTROL GROUP
- N90A AN/BLA-2(XN-1), ANTENNA CONTROL GROUP
- N90B AN/BLA-3(XN-1), ANTENNA CONTROL GROUP
- N90C AN/BRD-4, DIRECTION FINDER SET
- N90D AN/BRD-5, ANTENNA ASSEMBLY
- N90E AN/BRD-6, ANTENNA ASSEMBLY
- N90F AN/BRD-6A, DIRECTION FINDER SET
- N90G AN/BRD-6B, RECEIVER, RADIO
- N90H AN/SRD-7, DIRECTION FINDER SET
- N90J AN/SRD-7A, DIRECTION FINDER SET
- N90K AN/SRD-14, DIRECTION FINDER SET
- N90L AN/URD-1, RADIO SET
- N90M AN/URD-2, DIRECTION FINDER SET
- N90N AN/URD-2A, DIRECTION FINDER SET
- N90P AN/URD-4, DIRECTION FINDER SET
- N90Q AN/URD-4A, DIRECTION FINDER SET
- M90R AN/URD-4B, DIRECTION FINDER SET
- N90S AN/URD-4C, DIRECTION FINDER SET
- N90T AN/URD-4D, DIRECTION FINDER SET
- N90U ANTENNA SYSTEM, ECM-D/F
- N90V DAE, DIRECTION FINDER EQUIPMENT, RADIO
- N90W DAG, DIRECTION FINDER EQUIPMENT, PORTABLE
- N90X DAG-2, DIRECTION FINDER EQUIPMENT, PORTABLE
- N90Y DP-9, DIRECTION FINDER EQUIPMENT, RADIO
- N90Z DU-1, DIRECTION FINDER, RADIO, AIRCRAFT
- N910 DW-1, DIRECTION FINDER, RADIO, AIRCRAFT
- N911 AN/SLD-1, DIRECTION FINDER SET
- N913 AN/SLD-2, DIRECTION FINDER SET
- N914 AN/BRD-7 (XN-1), RADIO DIRECTION FINDER

**NA00
POSITION
FIXING
SYSTEM,
SHORE**

- NA01 R-1238/URR, RECEIVER, RADIO
- NA03 R-1239/URR, RECEIVER, RADIO

**NB00
JAMMING
SYSTEM,
POWER**

- NB01 AN/SLQ-12, COUNTERMEASURES
- NB03 AN/ULQ-7(XN-1), COUNTERMEASURES
- NB04 AN/SLQ-12A, COUNTERMEASURES
- NB05 AN/SLT-8, TRANSMITTER

**PASSIVE
ECM OTHER**

**ACTIVE,
ECM, OTHER**

**JAMMING
SYSTEM,
POWER**

WBS

491
ELECTRONIC
TEST, CHECK-
OUT, &
MONITORING
EQUIPMENT

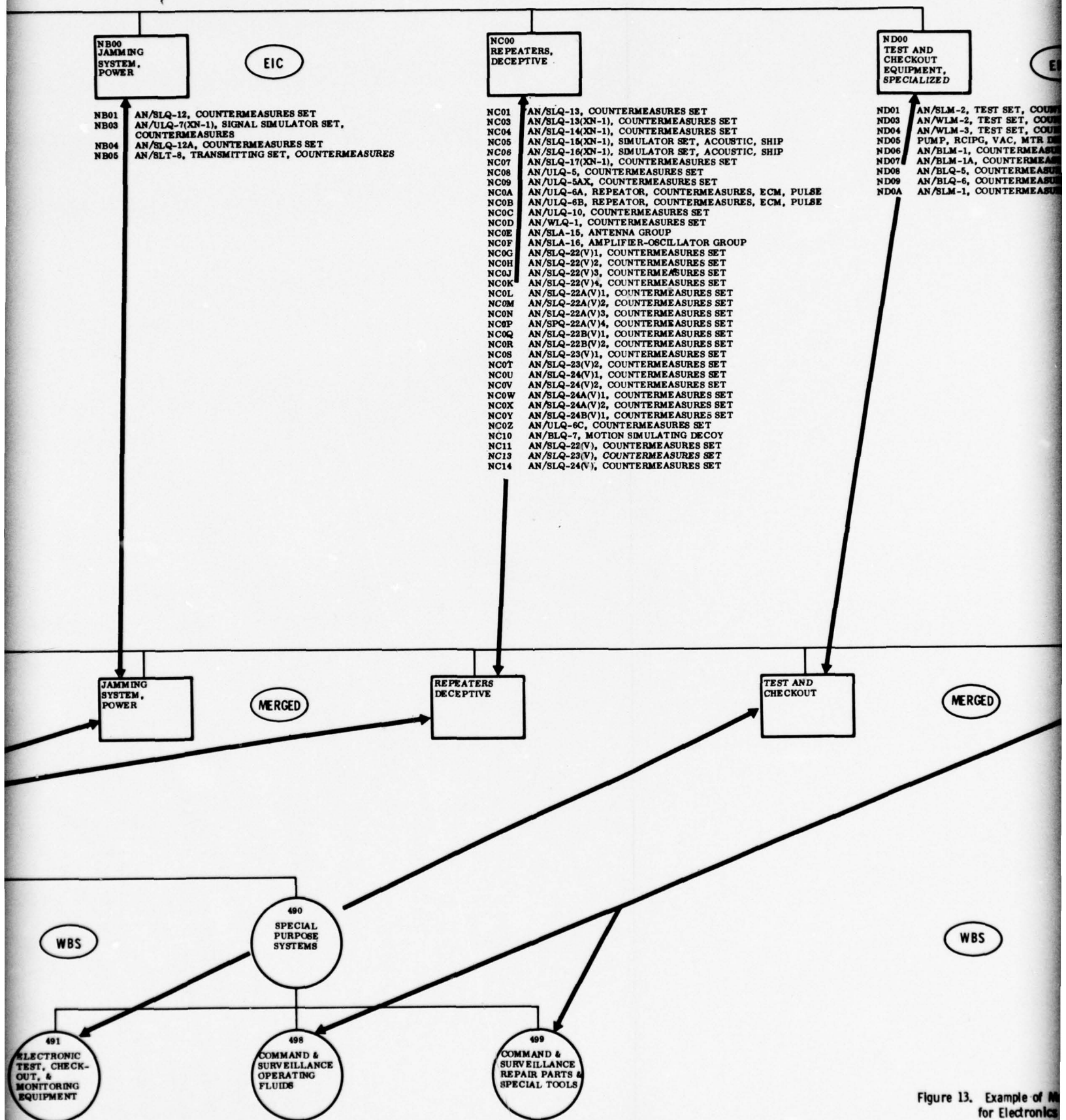


Figure 13. Example of M for Electronics

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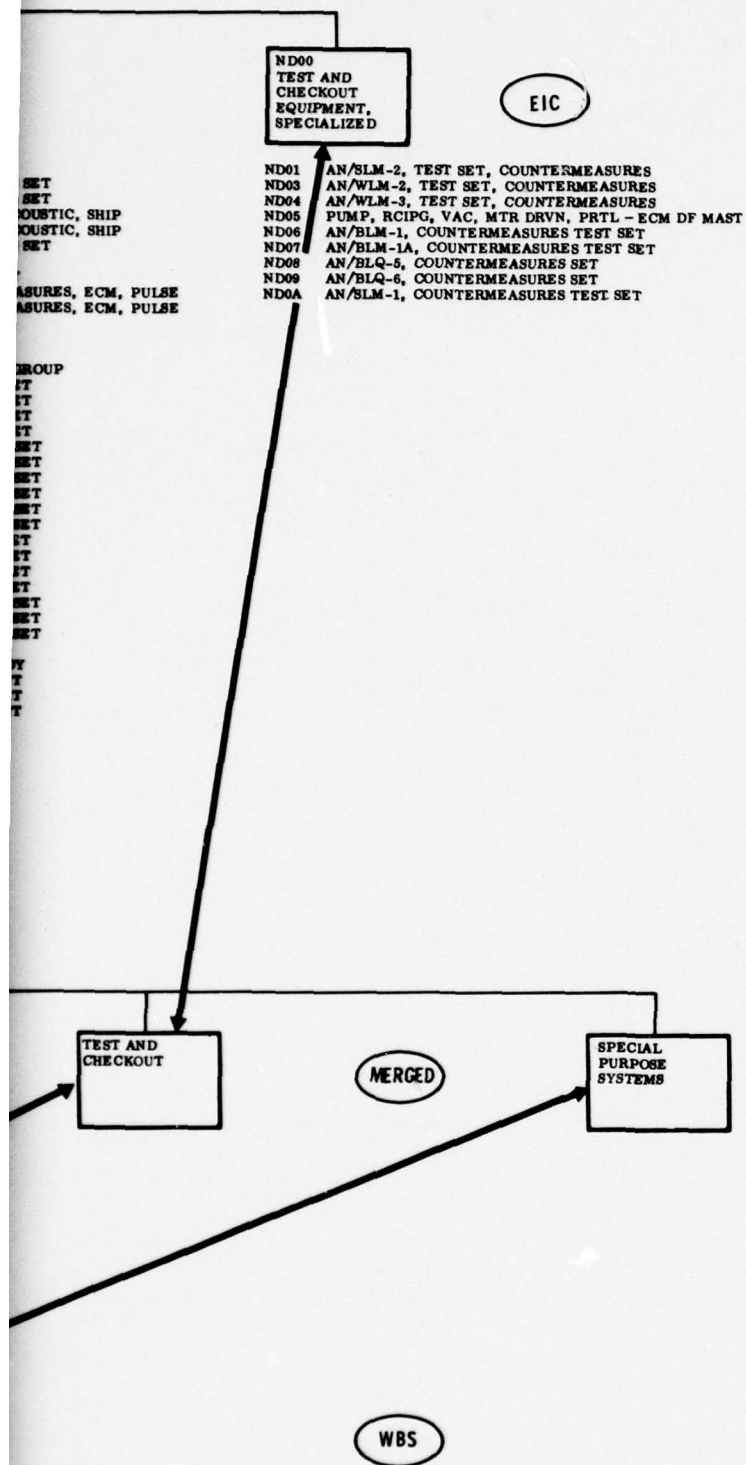


Figure 13. Example of Merged Structure Concept
for Electronics Type System

TABLE 1. EXAMPLE: INDEX LISTING OF GUN SYSTEMS
FOR MERGED STRUCTURE (Sheet 1 of 23)

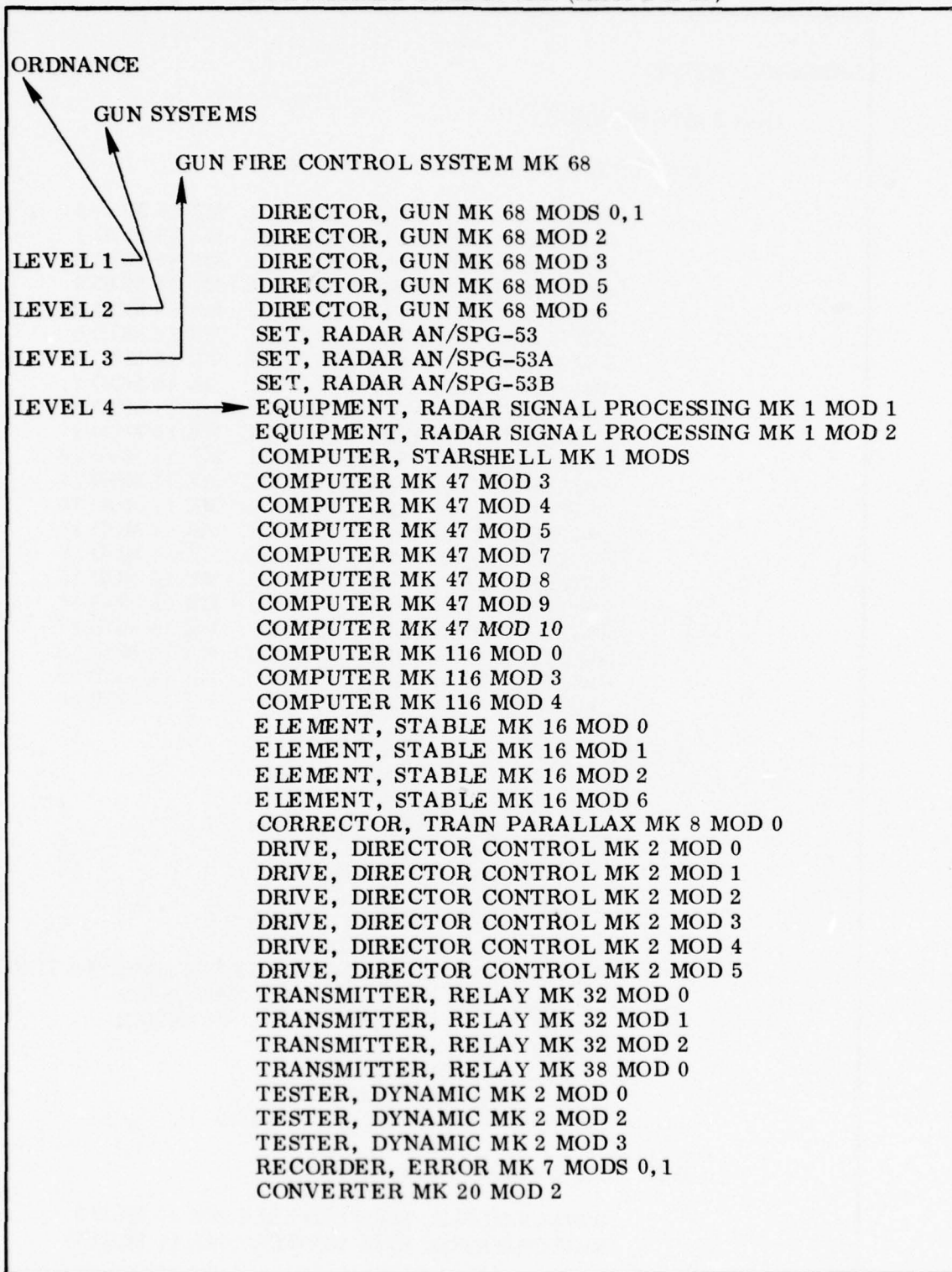


TABLE 1. (Sheet 2 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

SWITCHBOARD, FIRE CONTROL MK 14

SWITCHBOARD, FIRE CONTROL MK 14 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 7
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 8
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 9
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 10
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 11
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 12
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 13
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 14
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 15
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 16
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 17
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 18
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 19
 SWITCHBOARD, FIRE CONTROL MK 14 MOD 20

GUN FIRE CONTROL SYSTEM MK 70

DIRECTOR, GUN MK 51 MOD 13
 DIRECTOR, GUN MK 51 MOD 14
 SET, RADAR AN/SPG-52
 SET, RADAR AN/SPG-52A
 COMPUTER MK 6 MODS
 COMPUTER, FUZE MK 112 MODS 0, 1
 SIGHT, GUN MK 31 MODS 1-5
 CORRECTOR, TRAIN PARALLAX MK 5 MODS 0 THRU 11
 CORRECTOR, GUN ORDER MK 2 MODS 0, 1
 CORRECTOR, GUN ORDER MK 3 MODS 0, 2
 AMPLIFIER MK 10 MOD 0
 AMPLIFIER MK 10 MOD 1
 AMPLIFIER MK 121 MODS 1, 2
 DESIGNATOR, TRAIN MK 2 MOD 5

GUN FIRE CONTROL SYSTEM MK 86

SWITCHBOARD, FIRE CONTROL MK 16 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 16 MOD 1

TABLE 1. (Sheet 3 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 86 (CONT.)

SWITCHBOARD, FIRE CONTROL MK 16 MOD 2
SWITCHBOARD, FIRE CONTROL MK 16 MOD 3
SWITCHBOARD, FIRE CONTROL MK 16 MOD 4
SWITCHBOARD, FIRE CONTROL MK 16 MOD 5
SWITCHBOARD, FIRE CONTROL MK 16 MOD 6
SWITCHBOARD, FIRE CONTROL MK 16 MOD 7
SWITCHBOARD, FIRE CONTROL MK 16 MOD 8
SWITCHBOARD, FIRE CONTROL MK 16 MOD 9

GUN FIRE CONTROL SYSTEM MK 87

CONSOLE, FIRE CONTROL MK 75 MOD 0
SIGHT, OPTICAL, MK 33 MOD 0
ANTENNA RADAR MK 35 MOD 0
EQUIPMENT, RADAR, AUXILIARY MK 54 MOD 0
EQUIPMENT, RADAR MK 58 MOD 0
CONSOLE, DISPLAY MK 76 MOD 0
CONVERTER, SIGNAL DATA MK 64 MOD 0
SUPPLY, POWER, RADAR EQUIPMENT MK 142 MOD 0
PANEL, CONTROL MK 296 MOD 0
CONVERTER, SIGNAL DATA MK 63 MOD 0
PANEL, TEST, COMPUTER MK 297 MOD 0
DRYER, WAVEGUIDE MK 1 MOD 0
BOX, DISTRIBUTION MK 10 MOD 0
SWITCH, SAFETY MK 129 MOD 0

TARGET DESIGNATION SYSTEM MK 1

UNIT, CONTROL MK 42 MODS 4,5
PANEL, INDICATOR MK 2 MOD 1
PANEL, INDICATOR MK 3 MOD 1
PANEL, INDICATOR MK 5 MODS 0,1
PANEL, INDICATOR MK 5 MOD 7
TRANSMITTER, RELAY MK 18 MOD 3
TRANSMITTER, TARGET DESIGNATION MK 19 MOD 7
INDICATOR, GUN ELEVATION MK 54 MOD 1
INDICATOR, GUN ELEVATION MK 60 MODS 0,1
INDICATOR, BEARING AND RANGE MK 7 MODS 0-3

TARGET DESIGNATION SYSTEM MK 3

EQUIPMENT, DESIGNATION MK 3 MOD 0
COMPUTER MK 82 MOD 0

TABLE 1. (Sheet 4 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

TARGET DESIGNATION SYSTEM MK 3 (CONT.)

CONVERTER MK 5 MOD 0
PANEL, INDICATOR MK 5 MOD 0
PANEL, INDICATOR MK 5 MODS 13, 14
SUPPLY, POWER MK 62 MOD 1
MONITOR OWN FLEET XN-1/S
TRANSMITTER, TARGET DESIGNATION MK 19 MOD 2
INDICATOR, GUN ELEVATION MK 60 MOD 0

TARGET DESIGNATION SYSTEM MK 5

GENERATOR, VIDEO MK 3 MOD 0
GENERATOR, VIDEO MK 3 MOD 1
GENERATOR, VIDEO MK 3 MOD 4
CONVERTER, COORDINATE MK 26 MOD 0
CONVERTER, COORDINATE MK 26 MOD 1
CONVERTER, COORDINATE MK 26 MOD 5
INDICATOR, DESIGNATION MK 4 MOD 1
INDICATOR, DESIGNATION MK 4 MOD 5
UNIT, CONTROL MK 37 MODS 0, 1
UNIT, CONTROL MK 37 MODS 3-UP
UNIT, CONTROL MK 72 MOD 0
UNIT, CONTROL MK 72 MODS 1, 2
UNIT, CONTROL MK 72 MODS 3-6
UNIT, CONTROL MK 74 MODS 0, 1
UNIT, CONTROL MK 74 MODS 2, 3
PANEL, INDICATOR MK 5 MODS 5-10
PANEL, INDICATOR MK 5 MODS 17-24
PANEL, INDICATOR MK 5 MOD 27
TRANSMITTER, RELAY MK 32 MOD 4
TRANSMITTER, TARGET DESIGNATION MK 19 MOD 0
TRANSMITTER, TARGET DESIGNATION MK 19 MOD 7
TRANSMITTER, TARGET DESIGNATION MK 19 MODS 8-11
TRANSMITTER, TARGET DESIGNATION MK 22 MODS 0, 1
TRANSMITTER, TARGET DESIGNATION MK 23 MOD 0
INDICATOR, BEARING AND RANGE MK 7 MODS 0-3
INDICATOR, BEARING AND RANGE MK 7 MODS 4, 5

TARGET DESIGNATION SYSTEM MK 6

GENERATOR, VIDEO MK 5 MOD 0
CONVERTER, COORDINATE MK 23 MOD 0
CONVERTER, COORDINATE MK 26 MOD 1
INDICATOR, DESIGNATION MK 5 MOD 0

TABLE 1. (Sheet 5 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

TARGET DESIGNATION SYSTEM MK 6 (CONT.)

INDICATOR, DESIGNATION MK 6 MOD 0
INDICATOR, DESIGNATION MK 6 MOD 1
INDICATOR, DESIGNATION MK 7 MOD 0
CONSOLE MK 11 MOD 1
CONSOLE MK 11 MOD 3
CONSOLE MK 13 MOD 0
CONSOLE MK 13 MOD 1
CONVERTER, SCAN MK 25 MOD 0
CONVERTER, SCAN MK 25 MOD 1
PLOTTER MK 14 MOD 1
PLOTTER MK 14 MOD 2
UNIT, CONTROL MK 37 MODS 2, 10, 11, 14, 15
UNIT, CONTROL MK 74 MOD 2
PANEL, INDICATOR MK 5 MODS 17, 23
PANEL, INDICATOR MK 5 MOD 27
SUPPLY, POWER MK 76 MOD 0
SUPPLY, POWER MK 90 MOD 0
ASSEMBLY, RELAY MK 11 MOD 0
TRANSMITTER, TARGET DESIGNATION MK 19 MOD 1
TRANSMITTER, TARGET DESIGNATION MK 19 MODS 20-23
TRANSMITTER, TARGET DESIGNATION MK 23 MOD 0
BOX, JUNCTION MK 34 MOD 0
BOX, JUNCTION MK 34 MOD 3

GUNAR SYSTEM MK 3

SET, RADAR AN/SPG-48
MOUNT, RADAR ANTENNA MK 32 MOD 2
CONSOLE MK 7 MOD 4
GYRO UNIT MK 1 MOD 1
SUPPLY, POWER MK 60 MOD 1
GUN RATE TIMER
GUNAR UNIT TESTER
TRANSFORMER, POWER
AMPLIFIER MK 10 MOD 1
CORRECTOR, TRAIN PARALLAX MK 5 MOD 1
GENERATOR SET, MOTOR

TABLE 1. (Sheet 6 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN TURRETS

8/55 3 GUN TURRET RF
 8/55 3 GUN TURRET SF
 6/47 TRIPLE GUN TURRET SF
 16/50 3 GUN TURRET

GUN TURRETS SWITCHBOARDS, FIRE CONTROL

SWITCHBOARD, FIRE CONTROL MK 19 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 19 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 20 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 21 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 23 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 24 MOD 6

TABLE 1. (Sheet 7 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN MOUNTS

MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 3
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 4
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 5
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 7
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 8
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 9
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 1
 MOUNT, 5 IN. 54CAL. SINGLE RF MK 42 MOD 10
 MOUNT, 5 IN. 54CAL. SINGLE SF MK 39 MOD 0
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 0
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 1
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 0
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 3
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 4
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 5
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 11
 MOUNT, 5 IN. 38CAL. TWIN DP MK 38 MOD 12
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 1
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 5
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 6
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 9
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 12
 MOUNT, 5 IN. 38CAL. SINGLE MK 37 MOD 13
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 0
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 2
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 3
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 4
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 12
 MOUNT, 5 IN. 38CAL. TWIN DP MK 32 MOD 13
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 6
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 12
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 13
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 16
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 18
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 19
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 21
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 24
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 31
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 41
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 42
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 43
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 44
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 60

TABLE 1. (Sheet 8 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN MOUNTS (CONT.)

MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 61
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 65
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 67
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 70
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 71
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 73
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 75
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 77
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 81
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 82
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 83
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 86
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 90
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 91
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 92
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 93
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 94
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 95
 MOUNT, 5 IN. 38CAL. SINGLE MK 30 MOD 96
 MOUNT, 5 IN. 38CAL. SINGLE MK 24 MOD 9
 MOUNT, 5 IN. 38CAL. SINGLE MK 24 MOD 11
 MOUNT, 3 IN. 70CAL. TWIN RF MK 38 MOD 0
 MOUNT, 3 IN. 50CAL. SINGLE RF MK 34 MOD 1
 MOUNT, 3 IN. 50CAL. SINGLE RF MK 34 MOD 2
 MOUNT, 3 IN. 50CAL. SINGLE RF MK 34 MOD 3
 MOUNT, 3 IN. 50CAL. SINGLE RF MK 34 MOD 0
 MOUNT, 3 IN. 50CAL. SINGLE RF MK 34 MOD 5
 MOUNT, 3 IN. 50CAL. TWIN RF MK 33 MOD 0
 MOUNT, 3 IN. 50CAL. TWIN RF MK 33 MOD 4
 MOUNT, 3 IN. 50CAL. TWIN RF MK 33 MOD 7
 MOUNT, 3 IN. 50CAL. TWIN RF MK 33 MOD 12
 MOUNT, 3 IN. 50CAL. TWIN RF MK 33 MOD 13
 MOUNT, 3 IN. 50CAL. TWIN RF MK 27 MOD 3
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 26 MOD 1
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 26 MOD 2
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 26 MOD 3
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 26 MOD 0
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 22 MOD 3
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 22 MOD 4
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 22 MOD 0
 MOUNT, 3 IN. 50CAL. SINGLE SF MK 22 MOD 17

TABLE 1. (Sheet 9 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

LIGHTWEIGHT (ALUMINUM) MOUNTS

MOUNT, GUN 5 IN. 54CAL. RF MK 45 MOD 0

AA MACHINE GUNS

MOUNT, 40MM QUADR MK 2 MOD 5
MOUNT, 40MM QUADR MK 2 MOD 14
MOUNT, 40MM QUADR MK 2 MOD 18
MOUNT, 40MM QUADR MK 2 MOD 35
MOUNT, 40MM QUADR MK 2 MOD 39
MOUNT, 40MM TWIN MK 1 MOD 2
MOUNT, 40MM TWIN MK 1 MOD 6
MOUNT, 40MM SINGLE M3
MOUNT, 40MM SINGLE MK 3 MOD 0
MOUNT, 40MM SINGLE MK 3 MOD 4
MOUNT, 20MM SINGLE MK 4 MOD 0
MOUNT, 20MM SINGLE MK 4 MOD 1
MOUNT, 20MM SINGLE MK 4 MOD 2
MOUNT, 20MM TWIN MK 24 MOD 5
MOUNT, 20MM TWIN MK 24 MOD 6
MOUNT, 20MM SINGLE MK 10 MOD 1
MOUNT, 20MM SINGLE MK 10 MOD 4
MOUNT, 20MM SINGLE MK 10 MOD 0
MOUNT, 20MM SINGLE MK 10 MOD 17
MOUNT, 20MM SINGLE MK 10 MOD 16
MOUNT, 20MM SINGLE MK 10 MOD 23
MOUNT, 20MM SINGLE MK 10 MOD 29
MOUNT, 20MM SINGLE MK 10 MOD 32
MOUNT, 20MM SINGLE MK 51 MOD 0
MOUNT, 20MM SINGLE MK 16 MOD 4
MOUNT, 20MM SINGLE MK 16 MOD 5

GUN ROCKET LAUNCHERS

LAUNCHER, ROCKET (POWER) MK 102 MOD 0
LAUNCHER, ROCKET (POWER) MK 105 MOD 3
SYSTEM, LAUNCHING, ROCKET CHAFROC MK 28 MOD 0

SALUTING BATTERIES

40MM SALUTING BATTERY MK 11 MOD 0
40MM SALUTING BATTERY MK 11 MOD 1

TABLE 1. (Sheet 10 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 34

DIRECTOR, GUN MK 34 MOD 8
DIRECTOR, GUN MK 34 MOD 10
DIRECTOR, GUN MK 34 MOD 16
DIRECTOR, GUN MK 34 MOD 17
DIRECTOR, GUN MK 34 MOD 18
EQUIPMENT, RADAR MK 13 MOD 0
RANGEKEEPER MK 8 MOD 53
RANGEKEEPER MK 8 MOD 56
RANGEKEEPER MK 8 MOD 59
COMPUTER MK 48 MOD 1
COMPUTER MK 3 MOD 6
DIRECTOR, GUN (STABLE VERTICAL) MK 41 MOD 0

SWITCHBOARD, FIRE CONTROL MK 18

SWITCHBOARD, FIRE CONTROL MK 18 MOD 0
SWITCHBOARD, FIRE CONTROL MK 18 MOD 1
SWITCHBOARD, FIRE CONTROL MK 18 MOD 2
SWITCHBOARD, FIRE CONTROL MK 18 MOD 3
SWITCHBOARD, FIRE CONTROL MK 18 MOD 4
SWITCHBOARD, FIRE CONTROL MK 18 MOD 5
SWITCHBOARD, FIRE CONTROL MK 18 MOD 6
SWITCHBOARD, FIRE CONTROL MK 18 MOD 7
SWITCHBOARD, FIRE CONTROL MK 18 MOD 8
SWITCHBOARD, FIRE CONTROL MK 18 MOD 9

GUN FIRE CONTROL SYSTEM MK 37

DIRECTOR, GUN MK 37 MOD 7 (ARMA)
DIRECTOR, GUN MK 37 MOD 8 (ARMA)
DIRECTOR, GUN MK 37 MOD 9 (ARMA)
DIRECTOR, GUN MK 37 MOD 10 (ARMA)
DIRECTOR, GUN MK 37 MOD 16 (GE)
DIRECTOR, GUN MK 37 MOD 17 (GE)
DIRECTOR, GUN MK 37 MOD 20 (GE)
DIRECTOR, GUN MK 37 MOD 21 (GE)
DIRECTOR, GUN MK 37 MOD 22 (ARMA)
DIRECTOR, GUN MK 37 MOD 26 (ARMA)
DIRECTOR, GUN MK 37 MOD 29 (GE)
DIRECTOR, GUN MK 37 MOD 30 (GE)
DIRECTOR, GUN MK 37 MOD 32 (ARMA)
DIRECTOR, GUN MK 37 MOD 36 (ARMA)
DIRECTOR, GUN MK 37 MOD 49 (GE)

TABLE 1. (Sheet 11 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 37 (CONT.)

DIRECTOR, GUN MK 37 MOD 50 (GE)
 DIRECTOR, GUN MK 37 MOD 52 (ARMA)
 DIRECTOR, GUN MK 37 MOD 53 (GE)
 DIRECTOR, GUN MK 37 MOD 54 (ARMA)
 DIRECTOR, GUN MK 37 MOD 62 (GE)
 DIRECTOR, GUN MK 37 MOD 64 (GE)
 DIRECTOR, GUN MK 37 MOD 66 (GE)
 DIRECTOR, GUN MK 37 MOD 67 (GE)
 DIRECTOR, GUN MK 37 MOD 79 (GE)
 DIRECTOR, GUN MK 37 MOD 80 (GE)
 DIRECTOR, GUN MK 37 MOD 91 (GE)
 DIRECTOR, GUN MK 37 MOD 96 (GE)
 DIRECTOR, GUN MK 37 MOD 103 (GE)
 DIRECTOR, GUN MK 37 MOD 104 (GE)
 DIRECTOR, GUN MK 37 MOD 108 (GE)
 DIRECTOR, GUN MK 37 MOD 109 (GE)
 DIRECTOR, GUN MK 37 MOD 110 (GE)
 DIRECTOR, GUN MK 37 MOD 111 (GE)
 EQUIPMENT, RADAR MK 25 MOD 2
 EQUIPMENT, RADAR MK 25 MOD 3
 EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 0
 INITIAL VELOCITY YARD STICK UNIT XN-1
 COMPUTER, STARSHELL MK 1 MODS
 COMPUTER MK 1A MOD 8
 COMPUTER MK 1A MOD 12
 COMPUTER MK 1A MOD 13
 ELEMENT, STABLE MK 6 MODS
 AMPLIFIER MK 61 MODS 0, 1
 AMPLIFIER MK 61 MOD 2
 TRANSMITTER, RELAY MK 57 MOD 0

SWITCHBOARD, FIRE CONTROL MK 11

SWITCHBOARD, FIRE CONTROL MK 11 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 7
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 8
 SWITCHBOARD, FIRE CONTROL MK 11 MOD 9

TABLE 1. (Sheet 12 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

SWITCHBOARD, FIRE CONTROL MK 11

SWITCHBOARD, FIRE CONTROL MK 11 MOD 10
SWITCHBOARD, FIRE CONTROL MK 11 MOD 11
SWITCHBOARD, FIRE CONTROL MK 11 MOD 12
SWITCHBOARD, FIRE CONTROL MK 11 MOD 13
SWITCHBOARD, FIRE CONTROL MK 11 MOD 15
SWITCHBOARD, FIRE CONTROL MK 11 MOD 16
SWITCHBOARD, FIRE CONTROL MK 11 MOD 17
SWITCHBOARD, FIRE CONTROL MK 11 MOD 18
SWITCHBOARD, FIRE CONTROL MK 11 MOD 19
SWITCHBOARD, FIRE CONTROL MK 11 MOD 20
SWITCHBOARD, FIRE CONTROL MK 11 MOD 21
SWITCHBOARD, FIRE CONTROL MK 11 MOD 22
SWITCHBOARD, FIRE CONTROL MK 11 MOD 23
SWITCHBOARD, FIRE CONTROL MK 11 MOD 24
SWITCHBOARD, FIRE CONTROL MK 11 MOD 25
SWITCHBOARD, FIRE CONTROL MK 11 MOD 27
SWITCHBOARD, FIRE CONTROL MK 11 MOD 28
SWITCHBOARD, FIRE CONTROL MK 11 MOD 29
SWITCHBOARD, FIRE CONTROL MK 11 MOD 31
SWITCHBOARD, FIRE CONTROL MK 11 MOD 32
SWITCHBOARD, FIRE CONTROL MK 11 MOD 33

GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 38

DIRECTOR, GUN MK 38 MODS 4, 5
DIRECTOR, GUN MK 40 MOD 1
EQUIPMENT, RADAR MK 13 MOD 0
RANGEKEEPER MK 8 MOD 58
COMPUTER MK 48 MOD 1
DIRECTOR, GUN (STABLE VERTICAL) MK 41 MOD 0

GUN FIRE CONTROL SYSTEM MK 51

DIRECTOR, GUN MK 51 MODS 1, 2
DIRECTOR, GUN MK 51 MOD 3
SIGHT, GUN MK 14 MOD 8
SIGHT, GUN MK 14 MOD 12
SIGHT, GUN MK 14 MOD 14
SIGHT, GUN MK 15 MOD 2
SIGHT, GUN MK 15 MOD 14
SIGHT, GUN MK 15 MOD 15
SIGHT, GUN MK 15 MOD 16

TABLE 1. (Sheet 13 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 51 (CONT.)

UNIT, AIR SUPPLY MK 1 MOD 1
UNIT, AIR SUPPLY (FOR GFCS MK 51 MODS 1,2 ONLY)
TRANSMITTER, WIND MK 4 MODS 3,4

GUN FIRE CONTROL SYSTEM MK 52

DIRECTOR, GUN MK 52 MOD 2
DIRECTOR, GUN MK 52 MOD 3
EQUIPMENT, RADAR MK 26 MOD 3
EQUIPMENT, RADAR MK 26 MOD 4
COMPUTER MK 6 MODS
COMPUTER MK 13 MOD 2
COMPUTER MK 13 MOD 3
SIGHT, GUN MK 15 MOD 3
SIGHT, GUN MK 15 MOD 14
SIGHT, GUN MK 15 MOD 15
UNIT, AIR SUPPLY MK 1 MOD 1
CORRECTOR, TRAIN PARALLAX MK 2 MODS 1,2
CORRECTOR, GUN ORDER MK 2 MODS 0,1
TRANSMITTER, WIND MK 4 MODS 3,4
AMPLIFIER, RANGE SERVO MK 20 MOD 0
AMPLIFIER, RANGE SERVO MK 20 MOD 1
AMPLIFIER, RANGE SERVO, MK 20 MOD 4

GUN FIRE CONTROL SYSTEM (MAIN BATTERY) MK 54

DIRECTOR, GUN MK 54 MODS 0,1
EQUIPMENT, RADAR MK 13 MOD 0
RANGEKEEPER MK 8 MOD 66
COMPUTER MK 1A MOD 15
COMPUTER MK 48 MOD 1
ELEMENT, STABLE MK 6 MODS
DIRECTOR, GUN (STABLE VERTICAL) MK 41 MOD 1

GUN FIRE CONTROL SYSTEM MK 56

DIRECTOR, GUN MK 56 MODS 3,6
DIRECTOR, GUN MK 56 MODS 7,8
EQUIPMENT, RADAR MK 35 MOD 2
EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 3
COMPUTER, STARSHELL MK 1 MODS
COMPUTER MK 1A MOD 13
COMPUTER MK 30 MOD 6

TABLE 1. (Sheet 14 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 56

COMPUTER MK 30 MOD 8
COMPUTER MK 30 MOD 9
COMPUTER MK 30 MOD 10
COMPUTER MK 30 MOD 11
COMPUTER MK 30 MOD 12
COMPUTER MK 30 MOD 15
COMPUTER MK 30 MOD 16
COMPUTER MK 30 MOD 17
COMPUTER MK 42 MODS 3, 3A
COMPUTER MK 42 MODS 5, 5A
COMPUTER MK 42 MOD 6
COMPUTER MK 42 MOD 8
COMPUTER MK 42 MOD 13
COMPUTER MK 42 MOD 15A
COMPUTER MK 42 MOD 17
COMPUTER MK 42 MOD 19
ELEMENT, STABLE MK 6 MODS
ELEMENT, STABLE MK 7 MODS 1, 3
ELEMENT, STABLE MK 7 MODS 4, 5
ELEMENT, STABLE MK 16 MOD 7
CORRECTOR, TRAIN PARALLAX MK 6 MOD 3
CORRECTOR, TRAIN PARALLAX MK 6 MOD 4
CORRECTOR, TRAIN PARALLAX MK 6 MOD 5
UNIT, TARGET DESIGNATION MK 1 MOD 0
UNIT, TARGET DESIGNATION MK 1 MOD 1
UNIT, TARGET DESIGNATION MK 1 MOD 2
UNIT, TARGET DESIGNATION MK 1 MOD 3
UNIT, TARGET DESIGNATION MK 1 MOD 4
UNIT, TARGET DESIGNATION MK 1 MOD 5
UNIT, TARGET DESIGNATION MK 1 MOD 6
TRANSMITTER, WIND MK 5 MOD 2
TRANSMITTER, WIND MK 5 MOD 3
TRANSMITTER, WIND MK 5 MOD 4
TRANSMITTER, WIND MK 5 MOD 5
CONSOLE MK 4 MOD 6
CONSOLE MK 4 MOD 7
CONSOLE MK 4 MODS 9, 17
CONSOLE MK 4 MODS 10, 18
CONSOLE MK 4 MOD 12
CONSOLE MK 4 MODS 13, 13A
CONSOLE MK 4 MOD 14
CONSOLE MK 4 MOD 15
CONSOLE MK 4 MOD 16

TABLE 1. (Sheet 15 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 56 (CONT.)

TRANSFORMER MK 19 MOD 0
 TRANSFORMER MK 20 MOD 0
 PANEL, CONTROL MK 23 MODS 2, 3
 PANEL, CONTROL MK 27 MOD 2
 PANEL, CONTROL MK 27 MOD 9
 PANEL, CONTROL MK 27 MOD 10
 PANEL, CONTROL MK 28 MOD 6
 PANEL, CONTROL MK 28 MOD 7
 PANEL, CONTROL MK 28 MOD 9
 PANEL, CONTROL MK 28 MOD 10
 PANEL, CONTROL MK 28 MOD 12
 PANEL, CONTROL MK 28 MOD 13
 PANEL, CONTROL MK 28 MOD 14
 PANEL, CONTROL MK 57 MOD 1
 PANEL, CONTROL MK 57 MOD 4
 PANEL, CONTROL MK 57 MOD 5
 PANEL, CONTROL MK 57 MOD 6
 GENERATOR SET, MOTOR UNIT 44
 GENERATOR, MOTOR AMPLIDYNE (EL) UNIT 41
 GENERATOR, MOTOR AMPLIDYNE (TRAIN) UNIT 42
 SET, TEST MK 272 MOD 0

SWITCHBOARD, FIRE CONTROL MK 12

SWITCHBOARD, FIRE CONTROL MK 12 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 7
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 8
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 9
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 10
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 11
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 12
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 13
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 14
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 15
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 16
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 17
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 18

TABLE 1. (Sheet 16 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

SWITCHBOARD, FIRE CONTROL MK 12 (CONT.)

SWITCHBOARD, FIRE CONTROL MK 12 MOD 19
SWITCHBOARD, FIRE CONTROL MK 12 MOD 20
SWITCHBOARD, FIRE CONTROL MK 12 MOD 21
SWITCHBOARD, FIRE CONTROL MK 12 MOD 22
SWITCHBOARD, FIRE CONTROL MK 12 MOD 23
SWITCHBOARD, FIRE CONTROL MK 12 MOD 24
SWITCHBOARD, FIRE CONTROL MK 12 MOD 25
SWITCHBOARD, FIRE CONTROL MK 12 MOD 26
SWITCHBOARD, FIRE CONTROL MK 12 MOD 27
SWITCHBOARD, FIRE CONTROL MK 12 MOD 28
SWITCHBOARD, FIRE CONTROL MK 12 MOD 29
SWITCHBOARD, FIRE CONTROL MK 12 MOD 30
SWITCHBOARD, FIRE CONTROL MK 12 MOD 31
SWITCHBOARD, FIRE CONTROL MK 12 MOD 32
SWITCHBOARD, FIRE CONTROL MK 12 MOD 35
SWITCHBOARD, FIRE CONTROL MK 12 MOD 36
SWITCHBOARD, FIRE CONTROL MK 12 MOD 37
SWITCHBOARD, FIRE CONTROL MK 12 MOD 38
SWITCHBOARD, FIRE CONTROL MK 12 MOD 39
SWITCHBOARD, FIRE CONTROL MK 12 MOD 40
SWITCHBOARD, FIRE CONTROL MK 12 MOD 41
SWITCHBOARD, FIRE CONTROL MK 12 MOD 42
SWITCHBOARD, FIRE CONTROL MK 12 MOD 43
SWITCHBOARD, FIRE CONTROL MK 12 MOD 44
SWITCHBOARD, FIRE CONTROL MK 12 MOD 45
SWITCHBOARD, FIRE CONTROL MK 12 MOD 46
SWITCHBOARD, FIRE CONTROL MK 12 MOD 47
SWITCHBOARD, FIRE CONTROL MK 12 MOD 48
SWITCHBOARD, FIRE CONTROL MK 12 MOD 49
SWITCHBOARD, FIRE CONTROL MK 12 MOD 50
SWITCHBOARD, FIRE CONTROL MK 12 MOD 51
SWITCHBOARD, FIRE CONTROL MK 12 MOD 52
SWITCHBOARD, FIRE CONTROL MK 12 MOD 53
SWITCHBOARD, FIRE CONTROL MK 12 MOD 54
SWITCHBOARD, FIRE CONTROL MK 12 MOD 55
SWITCHBOARD, FIRE CONTROL MK 12 MOD 56
SWITCHBOARD, FIRE CONTROL MK 12 MOD 57
SWITCHBOARD, FIRE CONTROL MK 12 MOD 58
SWITCHBOARD, FIRE CONTROL MK 12 MOD 59
SWITCHBOARD, FIRE CONTROL MK 12 MOD 60
SWITCHBOARD, FIRE CONTROL MK 12 MOD 61
SWITCHBOARD, FIRE CONTROL MK 12 MOD 62
SWITCHBOARD, FIRE CONTROL MK 12 MOD 63

TABLE 1. (Sheet 17 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

SWITCHBOARD, FIRE CONTROL MK 12 (CONT.)

SWITCHBOARD, FIRE CONTROL MK 12 MOD 64
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 65
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 33
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 34
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 66
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 67
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 68
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 69
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 70
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 71
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 72
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 73
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 74
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 75
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 76
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 77
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 78
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 79
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 80
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 81
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 82
 SWITCHBOARD, FIRE CONTROL MK 12 MOD 83

GUN FIRE CONTROL SYSTEM MK 57

DIRECTOR, GUN MK 57 MOD 2
 DIRECTOR, GUN MK 57 MOD 3
 DIRECTOR, GUN MK 57 MOD 4
 DIRECTOR, GUN MK 57 MOD 5
 EQUIPMENT, RADAR MK 34 MODS 4, 11
 EQUIPMENT, RADAR MK 39 MOD 3
 COMPUTER MK 16 MOD 1
 COMPUTER MK 17 MOD 1
 COMPUTER MK 17 MOD 2
 UNIT, AIR SUPPLY MK 1 MOD 1
 CORRECTOR, TRAIN PARALLAX MK 5 MODS
 CORRECTOR, GUN ORDER MK 3 MODS
 TRANSMITTER, WIND MK 4 MOD 4
 AMPLIFIER MK 1 MOD 1
 AMPLIFIER MK 1 MOD 3
 AMPLIFIER MK 10 MOD 0
 AMPLIFIER MK 37 MOD 0

TABLE 1. (Sheet 18 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 57 (CONT.)

TRANSMITTER, RELAY MK 13 MODS 0-7
SUPPLY, POWER MK 4 MOD 1

GUN FIRE CONTROL SYSTEM MK 63

DIRECTOR, GUN MK 51 MOD 6
PEDESTAL, DIRECTOR MK 1 MODS 0-3
EQUIPMENT, RADAR MK 34 MOD 16
EQUIPMENT, RADAR MK 34 MOD 17
SET, RADAR AN/SPG-34
SET, RADAR AN/SPG-50
MOUNT, RADAR ANTENNA MK 19 MOD 6
MOUNT, RADAR ANTENNA MK 25 MODS 0, 1, 4, 6
COMPUTER MK 6 MODS
COMPUTER MK 6 MOD 25
ELEMENT, STABLE MK 7 MODS 4, 5
ELEMENT, STABLE MK 16 MOD 8
SIGHT, GUN MK 15 MOD 12
SIGHT, GUN MK 15 MOD 23
SIGHT, GUN MK 29 MODS 0, 1
SIGHT, GUN MK 29 MOD 4
UNIT, AIR SUPPLY MK 1 MOD 1
CORRECTOR, TRAIN PARALLAX MK 5 MODS
CORRECTOR, GUN ORDER MK 2 MOD 0
CORRECTOR, GUN ORDER MK 3 MODS
TRANSMITTER, WIND MK 4 MOD 4
INDICATOR, CROSS LEVEL, MK 88 MOD 0
AMPLIFIER MK 2 MOD 0
AMPLIFIER MK 4 MOD 1
AMPLIFIER MK 10 MOD 0
AMPLIFIER MK 10 MOD 1
AMPLIFIER, CONSOLE MK 22 MOD 0
AMPLIFIER, CONSOLE MK 22 MOD 1
AMPLIFIER MK 37 MODS 0, 1
TRANSMITTER, RELAY, MK 13 MODS 0-7
TRANSMITTER, ANTENNA CONTROL MK 59 MOD 0
CONVERTER MK 6 MODS 3-4
RECEIVER, RANGE MK 4 MOD 2
INDICATOR, HORIZON MK 1 MOD 2
UNIT, TARGET ACQUISITION MK 2 MOD 2

TABLE 1. (Sheet 19 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

GUN FIRE CONTROL SYSTEM MK 67

DIRECTOR, GUN MK 67 MODS 0, A
 DIRECTOR, GUN MK 67 MOD C
 EQUIPMENT, RADAR MK 25 MOD 5
 EQUIPMENT, RADAR SIGNAL PROCESSING MK 1 MOD 4
 COMPUTER, STARSHELL MK 1 MODS
 COMPUTER MK 47 MOD 3
 COMPUTER MK 47 MOD 4
 ELEMENT, STABLE MK 10 MOD A
 ELEMENT, STABLE MK 16 MOD 5
 DRIVE, DIRECTOR CONTROL MK 1 MOD 0
 DRIVE, DIRECTOR CONTROL MK 1 MOD C
 TESTER, DYNAMIC MK 2 MOD 1
 RECORDER, ERROR MK 7 MODS 0, 1

SWITCHBOARD, FIRE CONTROL MK 13

SWITCHBOARD, FIRE CONTROL MK 13 MOD 0
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 1
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 2
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 3
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 4
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 5
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 6
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 7
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 8
 SWITCHBOARD, FIRE CONTROL MK 13 MOD 9

AMMO HANDLING EQUIPMENT

5 INCH AMMO HOIST, AUTOMATIC DREDGER TYPE
 ROTATING READY SERVICE RACK, 5/38 CAL GUN
 3 INCH AMMO HOIST, AUTOMATIC DREDGER TYPE
 CRANE, BRIDGE, MANUAL
 CRANE, BRIDGE, AIR, FOR BI-RAIL HOIST
 ELEVATOR-SASS-LOWER STAGE, ELECTRO MECH
 HATCH, BALLISTIC-SASS ELEVATOR-LOWER STAGE,
 2ND DECK
 POWER UNIT, HYD, -FOR UPPER STAGE AUX ELEV. (SASS)
 HOIST, BI RAIL (AIR POWERED) FOR SASS
 TROLLEY-SASS (C)
 CRANE, BRIDGE, MANUAL, SASS
 ELEVATOR, ELECTRO-MECHANICAL, WEAPON/CARGO
 ELEVATOR

TABLE 1. (Sheet 20 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

AMMO HANDLING EQUIPMENT (CONT.)

ELEVATOR, ELMCH, AMMO HNDL SMALL ARMS
 ELEVATOR, ELMCH-ROCKET
 ELEVATOR, AMMUNITION
 ELEVATOR, ELMCH, ACFT AMMO HNDL (LOWER STAGE)
 ELEVATOR, ELMCH, ACFT AMMO HNDL (UPPER STAGE)
 HOIST, CHAIN (ELECTRIC)
 HOIST, ROPE, WIRE-1000LB. (ELECTRIC)
 HOIST, ROPE, WIRE-2000LB. (ELECTRIC)
 HOIST, AMMO, ELEC MECH, AUTO DREDGER TYPE
 DUMBWAITERS, SASS
 WINCH, ELEC MTRDN, WIRE ROPE-ACFT AMMO
 ELEVATOR, ELMCH, AMMO HNDL-BOMB (LOWER STAGE)
 ELEVATOR, ELMCH, AMMO HNDL-BOMB (UPPER STAGE)
 ELEVATOR, ELMCH, AMMO HNDL-MISSILE
 HOIST, PNEUMATIC PSTN-PRTL
 HOIST, ELEC, DC, WIRE ROPE-AMMO HNDL

TRAINING EQUIPMENT

MACHINE, 5 IN. LOADING MK 17 MOD 0
 MACHINE, 5 IN. LOADING MK 14 MOD 0
 MACHINE, 5 IN. LOADING MK 14 MOD 4
 MACHINE, 5 IN. LOADING MK 14 MOD 7
 MACHINE, 5 IN. LOADING MK 15 MOD 0
 MACHINE, 5 IN. LOADING MK 15 MOD 1
 MACHINE, 5 IN. LOADING MK 15 MOD 2
 MACHINE, 5 IN. LOADING MK 15 MOD 3
 MACHINE, 5 IN. LOADING MK 16 MOD 0
 MACHINE, 5 IN. LOADING MK 16 MOD 2
 MACHINE, 5 IN. LOADING MK 16 MOD 3
 MACHINE, 3 IN. LOADING RF MK 7 MOD 1
 MACHINE, 3 IN. LOADING RF MK 7 MOD 2
 MACHINE, 3 IN. LOADING RF MK 7 MOD 3
 MACHINE, 3 IN. LOADING RF MK 10 MOD 0
 MACHINE, 3 IN. LOADING RF MK 10 MOD 1
 MACHINE, 3 IN. LOADING RF MK 7 MOD 0
 MACHINE, 40MM LOADING SINGLE MK 2 MOD 0
 MACHINE, 40MM LOADING TWIN MK 3 MOD 1

SURFACE WARFARE SYSTEM TEST EQUIPMENT

UNIT, HYDRAULIC FILTER, MODEL RP-1-XB
 DIRECTOR, DUMMY MK 1 MOD 3

TABLE 1. (Sheet 21 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

SURFACE WARFARE SYSTEM TEST EQUIPMENT (CONT.)

RECORDER, ERROR MK 1 MOD 3
DIRECTOR, DUMMY MK 1 MOD 5
TESTER, SYNCHRO MK 1 MOD 0
CHRONOGRAPH MK 1 MOD 0

MISCELLANEOUS FIRE CONTROL EQUIPMENT

INDICATOR, DIRECTOR TRAIN MK 10 MOD 0
INDICATOR, TRAIN MK 55 MOD 0
INDICATOR, ELEVATION MK 66 MOD 0
INDICATOR, TRAIN (MULTIPLE TURRET) MK 58 MOD 0
INDICATOR, TRAIN (MULTIPLE TURRET) MK 11 MODS
INDICATOR, TRAIN (MULTIPLE TURRET) MK 12 MODS
INDICATOR, MULTIPLE DIRECTOR TRAIN MK 1 MODS 1,2
INDICATOR, MULTIPLE DIRECTOR TRAIN MK 2 MOD 0
ELEMENT, STABLE MK 5 MODS
UNIT, CONTROL MK 47 MOD 1
UNIT, CONTROL MK 48 MOD 2
INDICATOR, BEARING MK 6 MODS
INDICATOR, BEARING AND RANGE MK 7 MODS
RANGEFINDER MK 11 MOD 18
RANGEFINDER MK 14 MOD 1
RANGEFINDER MK 21 MODS
RANGEFINDER MK 28 MODS
RANGEFINDER MK 51 MODS
RANGEFINDER MK 57 MODS
RANGEFINDER MK 63 MOD 0
RANGEFINDER MK 65 MOD 0
INDICATOR, BEARING AND RANGE MK 10 MOD 0
INDICATOR, BEARING MK 22 MODS
INDICATOR, ELEVATION MK 54 MOD 0
INDICATOR, ELEVATION MK 65 MODS 0,1
INDICATOR, GUN ELEVATION MK 63 MOD 0
INDICATOR, DIRECTOR TRAIN MK 12 MOD 0
TRANSMITTER, TRAIN, TURRET MK 13 MOD 0
INDICATOR, BEARING AND RANGE MK 1 MODS
INDICATOR, BEARING AND RANGE MK 5 MODS
INDICATOR, RANGE MK 2 MODS 0-9
INDICATOR, DIRECTOR ELEVATION MK 6 MOD 2
INDICATOR, ELEVATION MK 50 MOD 0
INDICATOR, RANGE MK 31 MOD 11
INDICATOR, RANGE MK 4 MOD 0
INDICATOR, RANGE MK 11 MODS

TABLE 1. (Sheet 22 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

MISCELLANEOUS FIRE CONTROL EQUIPMENT (CONT.)

INDICATOR, RANGE MK 12 MOD 0
 INDICATOR, BEARING MK 10 MODS
 INDICATOR, BEARING MK 5 MODS
 INDICATOR, BEARING MK 11 MODS
 INDICATOR, BEARING MK 16 MODS
 INDICATOR, BEARING MK 7 MODS
 INDICATOR, CROSS LEVEL MK 88 MOD 0
 INDICATOR, BEARING MK 2 MODS
 INDICATOR, RANGE MK 5 MODS 0, 1
 INDICATOR, RANGE MK 5 MODS 4-11
 INDICATOR, RANGE MK 6 MODS
 PERISCOPE MK 36 MOD 0
 MOUNT, PERISCOPE MK 10 MODS 0, 3
 TRAINER, STEREO MK 2 MODS
 TRAINER, STEREO MK 3 MODS
 TRAINER, STEREO MK 5 MODS
 TRAINER, STEREO MK 6 MODS
 TRANSMITTER, TRAIN MK 9 MOD 4
 TRANSMITTER, TRAIN MK 10 MODS 0, 4
 TRANSMITTER, RELAY MK 26 MOD 1
 TRANSMITTER, RANGE MK 10 MODS
 TRANSMITTER, GUN ORDER RELAY MK 3 MOD 0
 TRANSMITTER, SIGHT ANGLE AND DEFLECTION MK 4
 MOD 0
 TRANSMITTER, RANGE MK 12 MODS
 TRANSMITTER, RELAY MK 32 MOD 3
 TRANSMITTER, BATTLE ORDER MK 29 MOD 0
 TRANSMITTER, BATTLE ORDER MK 31 MOD 0
 RECEIVER, RANGE MK 4 MOD 2
 TRANSMITTER/RECVR TARGET DESIG. MK 1 MOD 33
 TRANSMITTER/RECVR TARGET DESIG. MK 3 MODS 172, 173
 TRANSMITTER/RECVR TARGET DESIG. MK 7 MOD 4
 TRANSMITTER/RECVR TARGET DESIG. MK 10 MODS
 RECEIVER, TARGET BEARING MK 2 MODS
 CLOCK, TIME OF FLIGHT MK 1 MODS
 CLOCK, TIME OF FLIGHT MK 2 MODS

AMMO STOWAGE

MAGAZINES
 MOUNT AMMO STOWAGE AREAS
 PASSAGEWAY STOWAGE AREAS
 READY SERVICE ROOMS

TABLE 1. (Sheet 23 of 23)

ORDNANCE (CONT.)

GUN SYSTEMS (CONT.)

AMMO STOWAGE (CONT.)

IMMEDIATE SERVICE AMMO BOXES
ASSOCIATED EQUIPMENT

GUN FIRE CONTROL SYSTEM CHECKOUT EQUIPMENT

PORTABLE TEST GEAR
FIXED TEST GEAR
MONITORING SYSTEMS
CALIBRATION EQUIPMENT

OPERATING FLUIDS

FIRE CONTROL SYSTEM
ARMAMENT

REPAIR PARTS & SPECIAL TOOLS

FIRE CONTROL SYSTEM
ARMAMENT